

An Empirical Study of In-school and  
Out-of-school Day Care

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A thesis submitted to the Department of Graduate  
and Undergraduate Studies in Education in partial  
fulfillment of the requirements for the degree of

Master of Education

COLLEGE OF EDUCATION  
B R O C K   U N I V E R S I T Y  
St. Catharines, Ontario

January, 1986

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### Acknowledgements

I would like to express my sincere appreciation to the members of my committee - Dr. Ron Common for his guidance and leadership as well as Dr. Merle Richards and Dr. John Novak for their suggestions and encouragement.

I would also like to thank the day care staffs and administrators who so willingly opened their doors to me.

A special thank you to Marion and Grant Goodbrand for their confidence and encouragement throughout the duration of this research. And finally, many thanks to my friends on Brunswick Avenue for their constant support in my struggle.

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### Abstract

The purpose of this study was to determine if there were differences between in-school and out-of-school day care centres. Five centres housed in public schools and five housed in other locations were selected for the research. A quality assessment was administered in each centre which examined the following components - physical environment, adult social structure and socio-emotional environment, children's socio-emotional environment, cognitive stimulation program and toys and equipment. Quantitative analysis using simple t-tests showed a significant difference between in-school and out-of-school day cares for the physical environment variable. Differences approached significance for the children's socio-emotional environment variable as well as overall quality. Qualitative analysis using a triangulated methodology revealed noticeable differences for every variable. The researcher concluded that both the quality of the physical environment and the capabilities of the administrators strongly influence the quality of the day care environment.

This study also included an assessment of children's attitude toward learning. No significant difference was found between in-school and out-of-school centres.

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## INTRODUCTION

This study is about day care for young children. In the past, day care centres have been predominantly private operations housed in church basements, apartment buildings or private homes. However, throughout Canada there seems to be a move towards the integration of child care services with school programs. The availability of classrooms due to declining enrollment means that this integration is occurring quickly. In Ontario alone over 50% of the school boards are involved in such programs. These have been established within the last five to ten years. Some proponents of these facilities say it can help to reverse the trend of declining enrollment since parents will not be forced to seek out private schools that provide these programs. Also, schools that have preschool day care attract parents of young children into the schools and the children's attendance at such schools is likely to continue. The young children can attend the same school as their older brothers and sisters. This increases the child's security and decreases the parents' transportation problems. As well, the child becomes at ease in the school setting and can view school as a continuous process (Canadian Education Association, 1983).

These ideas have the support of many educators and parents but very little statistical backing. Few studies have examined the quality of day care centres. Indeed, the concept of day care has expanded so quickly that research into long-term effects is seriously lacking. As well, quality control methods have not been established. A quality comparison of in-school day care and out-of-school day care is essential before the trends go beyond reparation.

The present study includes just such a comparison and also

attempts to determine the effect of the day care environment on the child's attitude toward school.

## CHAPTER I

### REVIEW OF RELATED LITERATURE

#### Introduction

In this chapter, the investigator will begin with a summary of research on maternal deprivation. This research supports the idea of quality day care as an acceptable environment for young children and outlines the rise of the day care movement in western civilization.

In the United States and Canada many studies have been conducted to determine the effect of day care on the cognitive and emotional development of young children. Accordingly, the investigator will examine a number of studies that show a relationship between day care and academic achievement as well as studies that examine the relationship between day care and the affective domain.

The literature review concludes with an examination of the public school's involvement in day care.

#### Historical Background

The concept of day care for young children is not a product of twentieth century living. In fact as early as the 1700's there is evidence of European infant schools for the poor which were developed by Rousseau and later Pestalozzi. The famous "Casa di Bambini" was established by Maria Montessori in 1907 (Rusk, 1967).

Recognizing the importance of such institutions, the British government established nursery schools as part of the English national school system in 1918. Day care facilities in the United States were established as early as 1920 to free low-income parents to work. Their goals were mainly cognitive and emphasized the development of the intellect.

However, it was believed at the time that their effects on intelligence were almost nil since heredity was the most influential factor (Condry, 1983).

Since this time, considerable research has been carried out to determine the feasibility of a day care environment. Much of this research has focused on the topic of maternal deprivation and its effects on child development. However, studies such as those completed by Spitz and Bowlby have involved institutionalized children separated from their mothers rather than on more common separations of children from their parents. The conclusions drawn from such studies have been mistakenly generalized to include these common child-parent separations. Baers (1954) went so far as to claim that proper mothering was not possible if the mother went out to work.

In 1945, Rene Spitz began research with infants in foundling homes in Canada and the United States. He found evidence of anaclitic depression in the children. They were anxious, sad and their physical growth was retarded. His research resulted in the famous "Spitz Hypothesis" - institutionalized infants develop psychological disorders as a result of being separated from their mothers (cited by Casler, 1961). Spitz's studies have undergone a great deal of criticism. Pinneau (1955) questioned the methodology and statistical support. He concluded that "the results of Spitz's studies cannot be accepted as scientific evidence supporting the hypothesis" (cited by Casler, 1961, p.8). A further criticism was that in declaring separation from the mother as the cause of the anaclitic depression, Spitz overlooked the lack of environmental and sensory stimulation these institutionalized children suffered. Nor did he



consider the events preceding admission to the institution which may have affected the child's development.

John Bowlby (1973) used Spitz's work along with primate studies, in his development of the concept of the attachment function. As a means of survival and protection from danger, the infant seeks proximity to his mother. The mother, in turn, has a strong instinctive need to maintain proximity to the infant. Bowlby felt that this was a fundamental characteristic of the mother-child relationship. He stated, "What is believed to be essential for mental health is that the infant and young child should experience a warm, intimate and continuous relationship with his mother (or permanent mother-substitute) in which both find satisfaction and enjoyment" (1973, p.xi).

However, in further studies, Schaffer and Emerson (1964) found that attachment behaviour was not solely found in mother-child relationships. Often the main attachment was to the father and that "although there was usually one particularly strong attachment, the majority of the children showed multiple attachments of varying intensity" (cited by Rutter, 1972, p.17).

Although Schaffer and Emerson disagree with Bowlby's concept of monotropy (the child's attachment to one figure), they are in agreement about the age of onset. Attachment behaviour appears at around four to six months. Children separated from the attachment figure prior to this show no signs of distress. However, those separated after this period usually do suffer depressive symptoms. This phenomenon has not been observed in all infants studied over the age of six months. Robertson (1953) found little ill effects in his study of older infants (18 to 24

months) when separated from their mothers. He concluded that these infants had not developed a close relationship prior to their admission to the institution. O'Connor (1956) had similar findings. However unlike Robertson he instead concluded that in the particular institutional environments being studied, there was sufficient stimulation and human interaction to prevent physical, emotional and intellectual deterioration. He went so far as to say "under some circumstances, life in an institution can be stimulating and improving" (cited by Casler, 1961, p.186).

The environmental variable is a most important factor in determining the adjustment of the child to separation from his attachment figure. The question that naturally arises is what constitutes an adequate environment?

In order for infants to perceive and organize their environment, they must first be allowed to interact with it. They must be able to see it, smell it, touch it and move within it. From these sensory experiences, infants are capable of perceiving their environment. To ensure that these experiences take place, the very young infant should be frequently picked up, soothed and spoken to by adults. In a study of children in a foundling home in Beirut, Dennis and Najarian (1957) found that the infants had been deprived of all such experiences. The cribs were covered on all sides and on top with whitish-colour sheets to prevent the spread of disease. At bathing and feeding times, there was little interaction. It was completely impersonal, the adults seldom speaking to the babies. These conditions were very similar to those in the foundling homes of Spitz's experiments. Dennis and Najarian found examples of anaclitic

depression that matched Spitz's findings. Their conclusion, however, was quite different. They felt that the symptoms were created by perceptual deprivation rather than maternal deprivation. Spitz himself stated "this lack of stimuli (in institutions) made it impossible for a normally integrated perceptive organization to develop. Consequently, the adaptation of these infants to their environment was handicapped by inadequate sensory perception and equally inadequate motor responses" (cited by Casler, 1961, p.157).

These findings support the idea that interaction with the environment is important in the development of the child, to encourage the organization of perceptions. They also suggest that human interaction is an equally important facet to be considered. Touching others and being touched by others is necessary to help the child organize his perceptions into images. Being spoken to helps the child develop language from these images. With the development of language and understanding, the ability to think at higher levels develops. A caring adult could provide such stimulation outside of the home environment (Gerhardt, 1973).

Based on his primate studies, Bowlby (1973) emphasized the need for the child to attach himself to one person. Child-rearing practices in kibbutzes have de-emphasized this one-to-one relationship. Instead, they have encouraged multiple mothering. These children seldom suffer from depression but have developed into physically, emotionally and intellectually strong adults. It seems quite possible for a child to interact with several caring adults without negative consequences (Berger, Hackett and Millar, 1974).

A further requirement of an adequate environment is for the caring

adults to model acceptable behaviour. This need not be confined to parents. Another role of the caretaker is to provide consistent discipline and guidance.

Jean Piaget (1926) has emphasized the importance of play in the psychological development of the child. Although most of the play that children experience is with other children, play with adults is important. A caring adult will structure the play environment so that it stimulates creativity, experimentation and discovery. Is it not possible that any adult (not just the parent) who has special training in early childhood development could establish such a stimulating environment?

Since the rise of feminism, the mothering role has been devalued and the working woman is becoming the model of successful womanhood. With such a restructuring of the female role, it was absolutely necessary that an effective substitute for traditional child care be developed. Day care has become that alternative.

William Fowler (1980), in his book Infant and Child Care, expressed his belief in the need for high quality day care facilities for children. He stressed the importance of a pleasant physical environment, well-trained staff, an on-going in-service program for staff, an administrator with strong democratic leadership skills and a stimulating cognitive program based on play and individual development. As well, he was aware of the importance of the relationships between administration and staff, staff members with each other, staff and children and the involvement of parents. Fowler expressed concern that community day care has been accepted before definite standards have been established. In an attempt to define these standards, Fowler developed The Environmental Profile

(1980), a detailed assessment tool specifically designed to pinpoint the strengths and weaknesses of day care centres by focusing on the physical environment, the adult social structure, the children's socio-emotional environment, the cognitive program and the toys and equipment. A more detailed description of this instrument can be found in Chapter II of this study.

Day care facilities vary tremendously. In the past, many have merely provided custodial care, which is now considered unsatisfactory. However, with careful planning, day care programs can provide an adequately stimulating environment for the child. The need for high quality day care is revealed through the Consortium for Longitudinal Studies findings. Susan Condry stated, "This effort has provided convincing evidence that high quality preschool education programs have positive long-term effects on the subsequent school experiences of participating children" (Consortium for Longitudinal Studies (C.L.S.), 1983, p.28). Schweinhart and Weikart support this in their statement that "projects known to be successful have a high degree of quality control" (C.L.S., 1983, p.98). To merely provide custodial day care is indeed a disservice to children.

#### Long-Term Effects of Day Care

The 1960's saw a major focus on preschool intervention programs. Government sponsored programs such as Head Start attracted much attention and hope. Throughout the United States hundreds of preschool intervention programs sprang up. Many were established as experimental programs to determine the effects of preschool intervention on disadvantaged children. The literature on these programs is quite voluminous and it would be

impossible to critique all of it. Instead, this review will focus on several long-term follow-ups that were completed in 1975 when the Consortium for Longitudinal Studies (1983) was formed. The purpose of these studies was to determine the lasting effects of preschool.

The programs involved in the Consortium study had several common characteristics. All of the research was completed prior to 1969 and included samples in excess of one hundred subjects. The programs were carefully planned, well-run and monitored. Most of them had baseline data collected and control groups were used (except in one study where the number of educational intervention programs in the community precluded the use of a control group). They all had as a common goal the enhancement of cognitive development. As well, some had non-cognitive goals (Royce, Darlington and Murray, 1983).

In 1975, the data from the original programs were re-analyzed, follow-up data on program participants were gathered and a statistical analysis was completed. The research focused mainly on cognitive measures since instruments were reliable and valid. Although socio-emotional development was considered important, tests in these areas continue to appear psychometrically inadequate and little research has investigated this domain. The research findings reveal several trends in data, as outlined by Lazar (1983) below:

1. Children in attendance at preschool show significant gains in I.Q. for at least four years after the completion of the program.
2. Arithmetic and reading achievement scores are higher throughout elementary school.
3. Preschool graduates have fewer referrals to special education. As

well, there is a higher incidence of high school graduation.

4. When tested in high school, the self-esteem of preschool graduates is higher than that of non-attenders. They seem to value achievement more.

Lazar's interpretations are supported by data in many of the Consortium studies. Gray, Ramsey and Klaus (1982), Schweinhart and Weikart (1980), as well as Karnes, Shwedel and Williams (1983) found through their studies that children made immediate gains on intelligence testing after one year of preschool. These gains remained significant during intervention and immediately afterwards. However, following the initial gain, the scores slowly decreased until they were close to the pre-intervention scores. This usually occurred three to four years after the preschool experience was completed. Similarly, Miller and Bizzell (1983) saw significant gains during preschool intervention but a decline by grade two. However, they found that although the decline continued for females, it levelled off for males. Myron Woolman (1983) found that the experimental group in the Micro-Social Learning Environment matched the randomly selected control group scores in intelligence testing at the elementary school level. However, when matched with a control group of similar Hispanic background the scores of the experimental group were significantly higher. In the above cases, the Stanford-Binet intelligence test was administered to elementary school-age children. Testing in the later phases of each study utilized the Wechsler Intelligence Scale for Children.

Results on school achievement tests showed findings that support Lazar's interpretation. Gray et al. (1982) found significant differences in test scores in grade two but not in grades four or eleven. With

respect to achievement scores the authors stated "In view of the massive need, what we provided was too little and too soon terminated" (1983, p.64). Schweinhart and Weikart (1980) found that differences in school achievement scores favoured the experimental group but were significant only at age fourteen. Miller and Bizzell (1983) noted the trend for females to obtain a more superior score on achievement tests than males at the grade seven level. Palmer (1983) showed that those who had attended the Harlem preschool program scored on the average, one year ahead of their peers on reading and arithmetic achievement tests.

Seitz, Apfel, Rosenbaum and Zigler (1983) found that preschool graduates continued to maintain high general information scores despite attendance at a variety of schools during their school careers. As well, children involved in the follow-through program (a special program from kindergarten to grade three based on the open classroom concept with small class size) remained superior in mathematics testing or gained significantly throughout high school. Clearly, these studies indicate a trend for preschool graduates to attain higher scores on achievement tests. The comparison of scores by sex differences adds yet another dimension to the study of lasting effects of day care.

Lazar's third measure of the effects of preschool intervention was school competence as measured by placement in special education classes, incidence of high school graduation and retention in a grade. Gray et al. (1982) found through evaluation of school records, that the number of students placed in special education in elementary and secondary school was significantly smaller in the experimental group. Similarly, Schweinhart and Weikart (1980) found that by the end of high school only



19% of the preschool group had spent more than one year in special education as compared to 39% of the control group.

Further analysis by Gray et al.(1982) revealed a higher incidence of high school graduates for the female experimental group. This was particularly evident for students who had become pregnant during high school. Preschool graduates were more likely to return to school after the birth than girls without preschool intervention. This difference was significant at the  $p=.006$  level. The authors attributed it to the effect of preschool on motivational patterns. It would appear that females with preschool experience were more motivated to achieve at school.

Retention in a grade was discussed by Woolman (1983). He discovered that his disadvantaged experimental groups matched the randomly selected control group with regards to retention in any grade during elementary school. He concluded that these children were able to meet the minimum school requirements. However, the second control group (matched to the experimental group by Hispanic background) was found to be retained in grades significantly more often than the preschool group. Beller (1983) found that although preschool experience tended to result in less frequent retention, the difference was not significant.

The final area to be explored is Lazar's conclusion that preschool graduates have a higher self-esteem and seem to value achievement more. Throughout the studies the words self-esteem, self-concept and attitude were frequently interchanged. The data in question were collected by means of inventories such as the Piers-Harris Self-Concept Scale (1969), questionnaires, interviews and teacher ratings. Data were analyzed using both quantitative and qualitative measures. The lack of adequate reliable

instrumentation as well as the complexity of the area made analysis quite difficult. However, Seitz, Apfel, Rosenbaum and Zigler (1983) expressed the importance of the affective domain as follows, "To the degree that educational failure in later years is determined by motivational rather than cognitive problems, interventions aimed at improving cognition alone are likely to be relatively inefficient" (p.330). Unfortunately, their quantitative findings were not significant. This means that the strength of the above statement is questionable.

Gray et al. (1982) measured the affective domain by examining high school counsellor's ratings. The counsellors rated the female members of the experimental group consistently higher. Schweinhart and Weikart (1980) found that the experimental group showed a stronger commitment to school and had more educational aspirations. Elementary school teachers rated preschool graduates as maintaining appropriate classroom conduct and personal behaviour in the community. Also, preschool led to a decrease in teenage delinquent behaviour. Teachers of children in attendance at Woolman's Micro-Social Learning Environment felt that social interaction amongst the children had improved and that the program had a calming influence on the more aggressive children.

Perhaps the most detailed study of attitude and self-concept was the Philadelphia Study conducted by E. Beller (1983). The Piers-Harris Self-Concept Scale, as well as teacher ratings showed that the length of pre-school experience was directly related to a child's positive attitude towards school and learning. Preschool graduates also scored significantly higher in the motivation to succeed realm which was measured during I.Q. testing with regard to co-operation, involvement and

persistence. Extraneous variables were a concern to the author as noted in his statement that "it can be concluded from these findings that pre-school experience had a prolonged and somewhat delayed effect on the self-concept of these children, and that this effect varied with sex and family background" (p.356).

Preschool experience affected girls more strongly than boys. Beller (1983) considered that the boys' relationships with female teachers may have been negatively influenced by the boys' feelings towards their mothers. This is supported by the evidence that boys with at least two years' experience in preschool had more positive teacher comments on their reports suggesting that the negative cycle had been broken. The researcher also found that the employment status of the parents had a strong effect on the child's affective development. He suggested that employed parents themselves have a more positive self-image and may be better able to provide a more nurturing environment.

These findings provide evidence that preschool intervention has a marked effect on both the cognitive and affective domains.

#### The Affective Domain

Several other studies have focused primarily on affect. Review of such research reveals the breadth of the affective domain. In fact, it becomes difficult to isolate attitude towards school as separate from other aspects of the personality. Williams and Cole (1968) dealt with this problem by assuming "that a child's conception of school would be related to his conception of himself, and thus might be construed as an extension of his self-concept" (p.478). This was based on Levy's 1956 study which showed that self-concept encompasses all areas of life. He

states that "the individual may view his town, church, school, etc., in much the same way he construes himself" (cited by Williams and Cole, 1968, p.480).

With this in mind, the words attitude, self-concept, social-psychological adjustment, emotional adjustment and school-concept are used interchangeably because of their interdependent nature. They are part of the vastly complex affective domain of which very little is known as an absolute.

The Williams and Cole study (1968) looked at self-concept and school adjustment which was defined as attitude towards school (known as school-concept), emotional adjustment, mental ability and achievement. Significantly positive correlations were obtained between self-concept measures and each variable of school adjustment. The researchers were unable to locate an adequate assessment tool to measure attitude towards school. Instead, they established their own scale. This problem has been cited by several researchers as a severe limitation to studies concerning self-concept and attitude. Williams and Cole state, "While most school systems ubiquitously administer intelligence and achievement tests, very few attempt to provide valid, reliable measurements of self-concept. Such may be a function of the lack of reputable, standardized measuring instruments of self-concept for all age levels" (1968, p.480). The researchers concluded that school achievement was related to many variables not just intellectual ability or self-concept.

Charles Harper (1978) supported this last idea in his study of the impact of day care centres on children's social-psychological development. He stated, "It seems reasonable to treat family socio-economic status,

family size and role complexity, and day care centres for preschool children as independently functioning factors that provide resources and experiences relevant to enhancing the social-psychological development of children" (p.529). In his study, Harper used Ozehosky and Clark's U-Scale (1970) to measure self-concept as well as the Behaviour Disorder Checklist to measure social adjustment. He found that there were no meaningful differences between the day care and non-day care groups. However, the data did suggest that affective growth of children from disadvantaged family situations is enhanced by day care experience.

Two other studies conducted by Braun and Caldwell (1973), and Schwartz, Krolick and Strickland (1972) deserve mention at this time. The studies were similar in that they compared the effects of day care on children who had been involved in preschool intervention since infancy with those who had become involved after age three. Schwartz et al. (1972) were concerned that those children who had experienced infant day care would show an insecure attachment to the mother. This was true neither at the age of 30 months nor four years. They also found that the early enrollees had a more positive affective response to a new day care experience than the late enrollee group. The Braun and Caldwell (1973) study also involved late and early enrollee groups. Through observation, a child psychiatrist rated the children on social-emotional adjustment. There were no significant differences between the groups. However, the findings indicated that 83% of the entire sampling were making a reasonable social adjustment. The researchers concluded, "there was certainly no evidence in the study that group child care programs per se be associated with a high incidence of social and emotional maladjustment" (p.19).

These research findings indicate that day care experiences do not negatively influence the child's attitude towards school. However, Michael Rutter (1981) points out that this intervention is not without risks when he states that "much depends on the quality of the day care, and on the age, characteristics and family circumstances of the child" (p.4).

#### Day Care and the Public School

In Ontario as recently as October 1981, the Toronto Board of Education issued a report recommending that a child care centre be established in every elementary school in the city by September, 1984. The report's recommendation was based on the concern that too many children are left on their own due to the lack of affordable day care when what is needed is a "high quality environment that is conducive to development" (p.39). The trustees felt that such an environment was available through the school system (Parker, 1981).

The school's involvement in day care has been furthered by the appointment of the principal and one teacher to the day care's board of directors. As well, a co-ordinator and four full-time consultants are involved in the development and promotion of day care services in schools. The programs are reviewed annually and an important component of the review is the compatibility between the day care and school program. The report states that "this board believes that the involvement of the school board and school staff is a necessary step in the successful integration of child care programs in schools (Canadian Education Association (CEA), 1983, p.20).

In a 1981 discussion paper, the Canadian Teachers' Federation

expressed support for such involvement and suggested that a bureau be established at the provincial level to oversee in-school day care (CEA, 1983, p.23). As early as 1974, the American Federation of Teachers' president, Albert Shanker stated that "the responsibility for the enlarged program of day care and early education should be borne by the public schools" (cited by Levine, 1978, p.9).

Levine (1978) suggested that the public schools would be able to provide an orderly day care program of national scope to bring order out of chaos. He stressed the fact that the current system of regulating day care was inadequate and that quality control could be more closely monitored in the public schools. Here in Ontario the political body that oversees day care centres is the Ontario Ministry of Community and Social Services.

Specific standards for staff/child ratios and staff qualifications are present and the operator of each day nursery is required to have a written statement outlining program philosophy and policies regarding parental involvement, discipline practices and program development. Unfortunately, day care supervisors receive no guidance formulating these statements. A lengthy discussion with the member of the Ministry responsible for quality control revealed that there is in effect no assessment for quality of program or day care personnel. Child/staff ratios, health restrictions and quantity of space are the areas of prime importance for licensing a centre. However, as Joe Hollis (1981) noted, the existing public school administration is specially trained and quite capable of developing and monitoring such programs.

Unfortunately, Levine's extensive study of five in-school day care

facilities (1978) revealed a weakness in today's educational administration - that of sharing the power for budget control, staffing and curriculum design with early childhood educators and parents. On the other hand, Hollis (1981) stated "School systems guarantee democratic control by taxpayers and have built-in provisions for parent involvement" (p.101). The latter viewpoint is supported by Betty Caldwell's extended day school program housed in Kramer School, Little Rock, Arkansas from 1969 to 1979. In an article titled Day Care and the Schools she says, "the diversity of parent activities and the commitment made by staff to involving parents certainly belie the accusations made by critics of public school day care that parents would be excluded from such programs" (1980, p.123).

Caldwell (1980) went on to discuss several deterrents to public school day care. Of major concern to her was the apparent lack of trust between day care staff and the school teaching staff. Many early childhood educators felt that the education system was in a state of chaos and suspected that the school's interest in day care was merely an attempt to provide jobs for teachers during a time of declining enrollment. As well, she noticed the resistance of public school personnel who questioned the validity of educational procedures carried out with young children. Here in Toronto, the Borough of York, recognizing the importance of co-operation between the two staffs, requires that planning of the day care include both school personnel and day care staff. A joint staff development program is also present. This team approach benefits the child. The sharing of information and concerns between staffs makes it easier for the adults involved to work more productively to help solve problems (Seltzer, 1981).



Barbara Parker (1981) outlines thirteen reasons for starting an extended care program in a school. Several are related to the effective use of extra school space created by declining enrollment and the ultimate benefits to both taxpayer and school board. She discusses the financial advantages of such arrangements both in the initial cash outlay and the money saved from the lower incidence of vandalism. In expanding on the latter, she describes how children who are occupied before and after school have less opportunity to destroy school property. She also emphasizes the opportunity to improve public relations between the school and the community by showing that the school board "cares about kids". She also states, "Day care in the schools provides high quality education that many profit-making centres do not" (p.37). This undocumented claim requires investigation. The present study proposes to do just that.

#### Statement of the Problem

The problem proposed for investigation was two-fold. Primarily, it was to discover if the quality of in-school day care facilities was different from the quality of out-of-school centres. Second, the attitude that day care children develop towards school is examined to determine the effects of both in-school and out-of-school day care facilities.

#### Research Hypotheses

I General: The quality of in-school day care facilities will be significantly better than the quality of out-of-school day care facilities.

Specific: The quality of in-school day care facilities as measured by William Fowler's Environmental Profile (1980) will be signifi-

cantly better than the quality of out-of-school day care facilities as measured by the same instrument.

- II General: Children who attend in-school day care facilities will have a significantly better attitude towards learning than children who attend out-of-school day care facilities.

Specific: Children who attend in-school day care facilities will have significantly higher scores on the Arlin-Hills Attitude Toward Learning Processes-Primary (1976) survey, than children who attend out-of-school facilities.

#### Operational Definitions

##### Day Care Facility

For the purpose of this study a day care facility will be defined as a government licensed child care centre that conforms to the rules and regulations of The Day Nursery Act and the Policy Statement on Standards for Day Nurseries Services (February, 1983).

##### In-school Day Care Facility

A government licensed day care facility that is housed within a public school but has no administrative connection with the board of education.

##### Out-of-school Day Care Facility

A government licensed day care facility that is housed in any building other than a public school.

##### Age Restrictions

Children in attendance at these facilities may range in age from infancy to age seven. However, to be included in this study, the agency must offer programs to five, six and seven year olds who attend Senior

Kindergarten, Grade One or Grade Two.

#### Attitude Towards School

For the purpose of this study, attitude towards school will be defined as either a positive or negative attitude toward learning processes as measured by Arlin-Hills Attitude Toward Learning Processes-Primary (1976).

#### Contributions of this Study

In light of the growing trend to house day care centres in our public schools, the results of this study could be of interest to both educators and parents. Since the inclusion of day care facilities in schools is truly a drawing factor in our poorly populated school areas, the understanding of quality day care and its effects on children's learning is indeed an area of great interest to early childhood educators and administrators.

Throughout the world, the existence of preschool day care facilities has recently accelerated. William Fowler stated in his introduction to the Environmental Profile that "there is a definite need to ensure that quality is not sacrificed in the face of accelerating demands for group care." (p.148). It is hoped that each day care involved in this study will benefit from the results of their assessment and use these results to improve the quality of the day care environment.

#### Chapter Summary

The purpose of this first chapter was to investigate the research regarding the topic of day care, to define terms and to state the importance of the study. Chapter II will outline the design of the study and is followed by the findings of the research in Chapter III. Chapter

IV, the discussion, will show the relationships and associations discovered in the analysis. This study will conclude with a fifth chapter and cover the following topics - Summary, Conclusions and Implications and Recommendations for further research.

## CHAPTER II

### DESIGN OF THE STUDY

#### Introduction

In Chapter II the investigator will present the methodology for her research. Detailed descriptions of the setting, population and sample, as well as the instrumentation, will be discussed. Also, data gathering techniques and methods for data analysis will be introduced. The chapter concludes with an examination of the research limitations.

#### The Setting

The study was conducted in day care facilities situated in a metropolitan suburb of southwestern Ontario. The 1983 population of the suburb was 297,144. The geographical construct of the area was mostly residential with a full range of socio-economic levels. The average income across the borough was \$30,360.

The socio-economic strata in the borough can be examined more closely by considering the borough as three distinct areas known in this study as north, central and south. In the north, the accommodation is mostly medium-density housing (townhouses) with a large predominance of apartments and limited dividend housing. The average income in the north was \$27,660 according to the 1981 census. The central part of the borough is a physically larger though less populated area. There is a smaller proportion of subsidized living accommodation and several areas of high income earners. The 1981 average income was \$33,508. In the south, the average income as of 1981 was \$22,970. This is a geographically smaller area than the central and north with considerably more low-rental areas.

Accommodation that is administered by Metro Housing (formerly known as Ontario Housing) is found in all three areas with the largest proportion in the north and the least in the south.

There were ten day cares involved in this study. Four were situated in the northern part of the borough, four in the central zone and two in the south.

#### Population and Sample

Five day care centres situated in places other than public schools were randomly selected from the suburban telephone directory. These are listed as out-of-school facilities in this paper and are identified as B schools. Centres 2B and 4B were housed in church basements, 1B in the basement of a community centre, 3B in the basement of an apartment building and 5B in a small shopping plaza.

Each out-of-school day care centre was matched with an in-school facility labeled in this study as A schools. The matching was done by geographic location such that children attending the matching day cares also attended the same elementary schools. Each in-school facility was housed on the main floor of a metropolitan public school. Four of the day cares were physically isolated from the regular school classrooms. However, centre 4A had four rooms spread amongst the regular classrooms at the special request of the school principal.

The investigator contacted the director of each day care centre by telephone in order to describe the study (see Appendix A). Anonymity was assured and a follow-up interview to discuss the investigator's observations was included as part of the study. Verbal consent was obtained.

In the second part of the study, the sample consisted of the

children in each day care who also attended elementary school in senior kindergarten, grade 1 or grade 2. Written parental consent (see Appendix B) was obtained before these children participated in the study. To ensure confidentiality, the children were not required to write their names on the surveys.

### Instrumentation

An overview of the instrumentation used in this study is found in Table 1.

Table 1                                      Overview of Instrumentation Used in Study

Variable	
Quality of Day Care	Environmental Profile (1980) A method for assessing the educational and socio-emotional quality of day care environments
Attitude	Arlin-Hills Attitude Surveys (1976) Attitude Toward Learning Processes-Primary

For the first part of the study, William Fowler's Environmental Profile was used to assess the educational and socio-emotional quality of the ten day care environments.

Fowler felt that there was a large gap between day care goals and the actual performance level. He therefore saw the need for a tool to assess how well objectives and methods were actually realized in practice. He states, "We have designed a set of scales intended to define performance standards and operating conditions essential to the functioning of quality group care for young children" (p.149). In collaboration with Karen Ogston, he developed an instrument that was

comprehensive, well-defined and relatively easy to administer.

The instrument focuses on three important developmental areas - physical, social and intellectual. It is organized into five areas as follows.

Form 1: Physical Environment

Form 2: Adult social structure and socio-emotional environment

Form 3: Structure of children's socio-emotional environment

Form 4: Cognitive Stimulation Program

Form 5: Toys and Equipment

Each scale consists of a varying number of items which are rated from one to seven. Scores less than three are considered deficient, between three and five acceptable and above five exceptional. Scoring for each scale is carried out on a profile sheet according to specific, detailed scale descriptions. Ratings are marked at the appropriate points along the scales on the profile sheets after careful deliberation of the textual description.

Polit and Hungler (1983) state that "the reliability of a measuring instrument is a major criterion for assessing its quality and adequacy" (p.385). Another way of defining reliability is in terms of accuracy - if a test's measures accurately reflect the "true" measures of the attribute under question. The inter-rater reliability of this instrument has been tested on two occasions. On the total set of five scales the reliability was .70. Reliability ratings for two scales only, the adult social structure and socio-emotional environment and children's socio-emotional environment reached .98. These scores indicate that the instrument is a reliable measure of the quality of care. However,



the scales have since been revised to improve the reliability ratings. As well, the investigator administered every instrument so there was no need to reassess between-tester reliability. The structured nature of the instrument reduced investigator bias and helped ensure the reliability of the data.

Evidence supporting the validity of this measure is not available.

The Arlin-Hills Attitude Surveys (1976) were developed solely for group use rather than individual assessment. Marshal Arlin states in his introduction that "assessment of student attitudes is an exceedingly complex task and that any user of these instruments approach the task with considerable humility and respect for pupils assessed" (p.1).

The entire package was initially constructed as a three part test - school climate, attitude towards arithmetic and attitude towards reading. The school climate survey was later expanded to include an attitude towards teacher survey as well as an attitude towards learning processes scale.

Time restrictions created by the age of the participants and their attention spans as well as the investigator's available time meant that only one test could be administered. The Attitude Towards Learning Processes Survey was used in this study.

The form consisted of 15 items of a Likert-type scale that ranged from 0 (most negative attitude) to 3 (most positive attitude). the questions, presented in cartoon format, required that students respond by selecting yes, usually, sometimes or no as their answer. The entire fifteen questions were administered to a small group of children. Although pre-teaching of definitions was included by the investigator,

the children required considerable assistance in completing the first two questions on the survey. As a result these two questions were not included in scoring. As well, questions 5, 12 and 15 were omitted from the scoring because of their ambiguous nature. According to Marshal Arlin's guidelines, a score of 20 would indicate a positive attitude towards learning processes on the revised scale. The pre-test teaching techniques were identical in all ten situations. The investigator presented the surveys in a game-like manner and attempted to make the test situation fun for the children. Conditions during the administration of the test were kept as constant as possible in order to increase data reliability.

In commenting about validity, Arlin (1976) suggests that "much of the validity of the present instrument will be based on the degree to which it is interpreted appropriately" (p.19) rather than just the degree to which the instrument measures what it is supposed to measure. Interpretations should be made using units of twenty or more children. Arlin refers to this as "interpretation validity". With reference to face validity Arlin states that there is "a reasonable degree of congruity between what is purported to be measured and the items" (p.20). However, the authors do not feel that the test items adequately sample the domain of items which measure the complex realm of attitude towards learning. As such, content validity is lacking and Arlin suggests that the users examine the test items closely to see if the content domain is rich enough for their purposes. Indeed, the investigator was not satisfied with the content of this survey but found that the lack of more appropriate group-administered attitude surveys for

young children made its use a necessity.

#### Data Gathering Techniques

Data collection proceeded once the sample was selected. The director of each day care centre was contacted by telephone, the purpose and nature of the study were described and verbal consent was given for the facility to be a part of the study. In each case, the response of the day care director to both the study and their participation was positive and a visit was arranged for a mutually convenient time. All visits were completed by the investigator during a two week period between August 8, 1983 and August 26, 1983. The researcher spent four hours in each day care between the hours of 9:00 a.m. and 1:00 p.m.

The researcher spent considerable time prior to the first visit becoming familiar with the scale descriptions for William Fowler's Environmental Profile (1980). As well, an informal interview format (Appendix C) was drawn up to aid the investigator in completing Form 2: Adult social structure and socio-emotional environment and parts of Form 3: Structure of children's socio-emotional environment. This questionnaire was administered as an interview and involved the investigator and the director of each day care centre. The interview took place at 9:00 a.m. and was approximately thirty minutes in length. At this time, the investigator responded to any questions about the study. When the interview was completed the researcher requested a supervised tour of the facility and was introduced to each teacher and the assistants.

For the next three hours, the investigator observed the activity in the day care both inside during lessons and play and outside during

outdoor play. As a teacher of young children, the researcher had the advantage of feeling quite comfortable in the day care environment. At no time was the scheduled program interrupted. As well, the investigator attempted to remain as uninvolved as the children would allow. The scale descriptions developed by William Fowler were adhered to closely to ensure uniformity. As well, during the visits, the researcher kept extensive anecdotal records of her observations. Immediately following the four hour visit, the researcher completed the scoring in detail and transcribed the interviews.

In February, 1984 it was discovered that centre 2B had closed because of a lack of sufficient government funding. As a result, this centre was replaced with a similar facility that matched the original in geographic location and physical space.

The administration of the attitude measure began in January, and continued until mid-March of the same year. The researcher sent sufficient copies of the parental consent form to each day care prior to her visit. The letters were sent home with each child and returned to the day care. The researcher visited each centre at 4:00 p.m. and administered the Attitude Toward Learning Processes survey to all children attending Senior Kindergarten, Grade 1 and Grade 2. It should be noted that children from one day care who completed the survey were in attendance at more than one neighbourhood school and could be enrolled in six different classrooms. This provided variety in teaching styles and school philosophy.

Prior to administering the survey, the researcher taught a lesson on the meaning of the terms yes, usually, sometimes and no. The lesson

included concrete examples and illustrations of the meanings. Children were requested not to write their names on the forms and the researcher presented the test in a fun manner, asking the children for their help in the study. The researcher's pre-test lesson and presentation techniques were consistently the same for each day care.

### Data Analysis

The data collection to assess the quality of day care included both the quantitative and qualitative dimensions. Polit and Hungler (1983) suggested the following interpretation of the two types of data:

"Quantitative data, as the term suggests consist of numerical information. Qualitative data, on the other hand, consist of detailed descriptions of people, events, situations or observed behaviour"(p.466).

Fowler's scale provided the quantitative measure while participant observation and an open-ended interview schedule captured the unique similarities and contrasts of the facilities.

As such, data analysis will include both quantitative and qualitative techniques. This method of analysis is supported by Polit and Hungler (1983) who state, "... an understanding of human behaviour problems and characteristics is best advanced by the judicious and combined use of both qualitative and quantitative data" (p.467). However, in the past, the vast majority of educational research has used quantitative analysis in processing data. In the last decade the use of qualitative data has increased. Stiegelbauer, Goldstein and Huling (1982) suggest this may be a reaction to the over-emphasis on quantitative methods. They go on to state that "the qualitative base allows for the emergence of categories from the data and the beginning of an

analytic structure in looking for interrelationships across categories" (p.52). Meyers (1981) says that qualitative and quantitative studies are inseparable and are necessarily related to each other. He goes so far as to state, "Quantitative methods cannot be fruitful unless qualitative data are used to inform the interpretation of the designs and variables (cited by Stiegelbauer et al., 1981, p.52).

Multiple data collection techniques used with multiple analytic strategies, a methodology known as triangulation (Stiegelbauer et al., 1982) is defined:

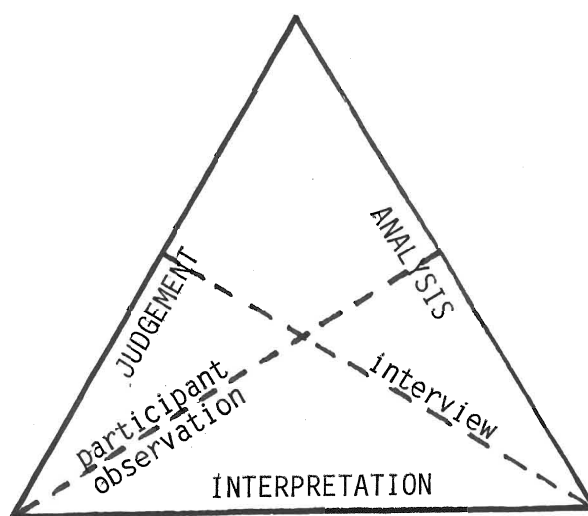
Triangulation has been used largely as a vehicle for cross validation as in the case where two or more distinct methods are found to be convergent and yield comparable data. A special feature of qualitative methods in triangulation is in eliciting a breadth of data or illuminating elements of context that allow deeper dimensions to emerge. Non-convergence of data in triangulation is also important in that it requires a reassessment of methodology or data base to establish the basis for differences. This in itself can add richness to the study. (p.53)

Patton (1980) describes the qualitative aspect of triangulation as a three-part procedure. The first part he calls the analysis where one brings order to the data by organizing it into patterns, categories and descriptive units. The investigator then proceeds to the interpretation phase and attaches meaning and significance to the analysis by explaining patterns and looking for relationships. The final phase is known as evaluation and is the time when the investigator makes judgements and assigns value to what has been analyzed and interpreted.

In this study, the data collected by participant observation and interview were analyzed by the qualitative techniques outlined by Patton. The investigator looked for trends, discrepancies and interrelationships in the data. A graphic representation of the investigator's triangulation methodology is found in figure 1. To complete the

triangulated methodology, quantitative analysis was used to examine the numerical data. Mean scores for the in-school and out-of-school centres were tallied in each of the five scale categories as well as the total score. One-tailed t-tests were used to determine if the in-school facilities scored significantly higher than the out-of-school day cares. The level of significance chosen was  $p = .05$ .

Figure 1                      Graphic Representation of the Qualitative Aspects of Triangulation



The attitude measures were examined using quantitative analysis only. T-tests were used to determine if significant differences existed between attitude scores for matching day care centres. As well, a comparison of the mean scores between in-school and out-of-school facilities was completed using a simple t-test. The level of significance chosen for a one-tailed t-test was  $p < .05$ . A one-tailed test was chosen because the hypothesis was directional.

#### Limitations

This is exploratory research. The participating ten day care

centres were a convenience sample selected by the investigator because of their geographic location. As such, the sample was not representative of the population because of its size. All surveys were administered by one researcher - allowing the possibility that the bias of the interviewer could affect the results.

Nine day care centres were assessed during the summer months. Due to the unfortunate closing of one out-of-school centre, the tenth assessment took place during the month of February. It is unknown what effect this six month difference had on the quality score.

Due to the researcher's limitations in both time and financial support, the study was indeed a short-term project. As a result, there was no pre-testing of the children involved, nor any knowledge of family background or previous day cares attended. There were no controls for individual socio-economic variance, emotional health of the children, their intelligence quotients or their sex.

#### Summary

The research design was presented in this chapter. Five out-of-school facilities listed in the telephone directory were randomly selected for the study and matched with five in-school day cares. The investigator completed a quality assessment for each facility and an attitude survey was administered to children who attended each centre. Both quantitative and qualitative data were collected and analysis was completed through the process of triangulation. The results of this analysis are outlined in the following chapter.



## CHAPTER III

### THE FINDINGS

#### Introduction

William Fowler's Environmental Profile assessed the quality of a day care facility by examining the following variables: physical environment, adult social structure and socio-emotional environment, structure of children's socio-emotional environment, cognitive stimulation program and finally toys and equipment. As such, the findings of this study are presented separately for each of these areas. Quantitative analysis includes statistical testing for differences between in-school and out-of school facilities on scores obtained for each of the five variables as well as the overall quality. A table of raw scores for all variables is found in Appendix D.

The qualitative analysis for each variable includes an examination of the similarities and differences amongst the day cares with similar physical environments. As well, similarities and differences between in-school and out-of-school facilities are examined.

The attitude towards school variable was assessed by the Arlin Hills Attitude Survey (1976). Quantitative analysis includes the testing for a significant difference between matching in-school and out-of-school centres. As well, a comparison of mean scores is undertaken.

#### Physical Environment

Physical Environment encompasses the quantity of indoor and outdoor space. Indoor space includes general play areas, gross motor play areas, bathroom facilities and staff lounge areas. Outdoor space includes soft surface areas (grass or soft ground), hard surface areas (asphalt,

concrete or hard ground) and nature gardens.

The raw scores for all facilities are shown in Figure 2. A score ranging from forty-eight to eighty would be considered acceptable according to Fowler's requirements. Scores below this are considered deficient and above this exceptional. Of the ten facilities examined, four scored within the acceptable range while the remaining six were considered deficient in terms of physical space. Every one of those that were considered acceptable were in-school centres. All in-school facilities scored higher than their matching out-of-school centre.

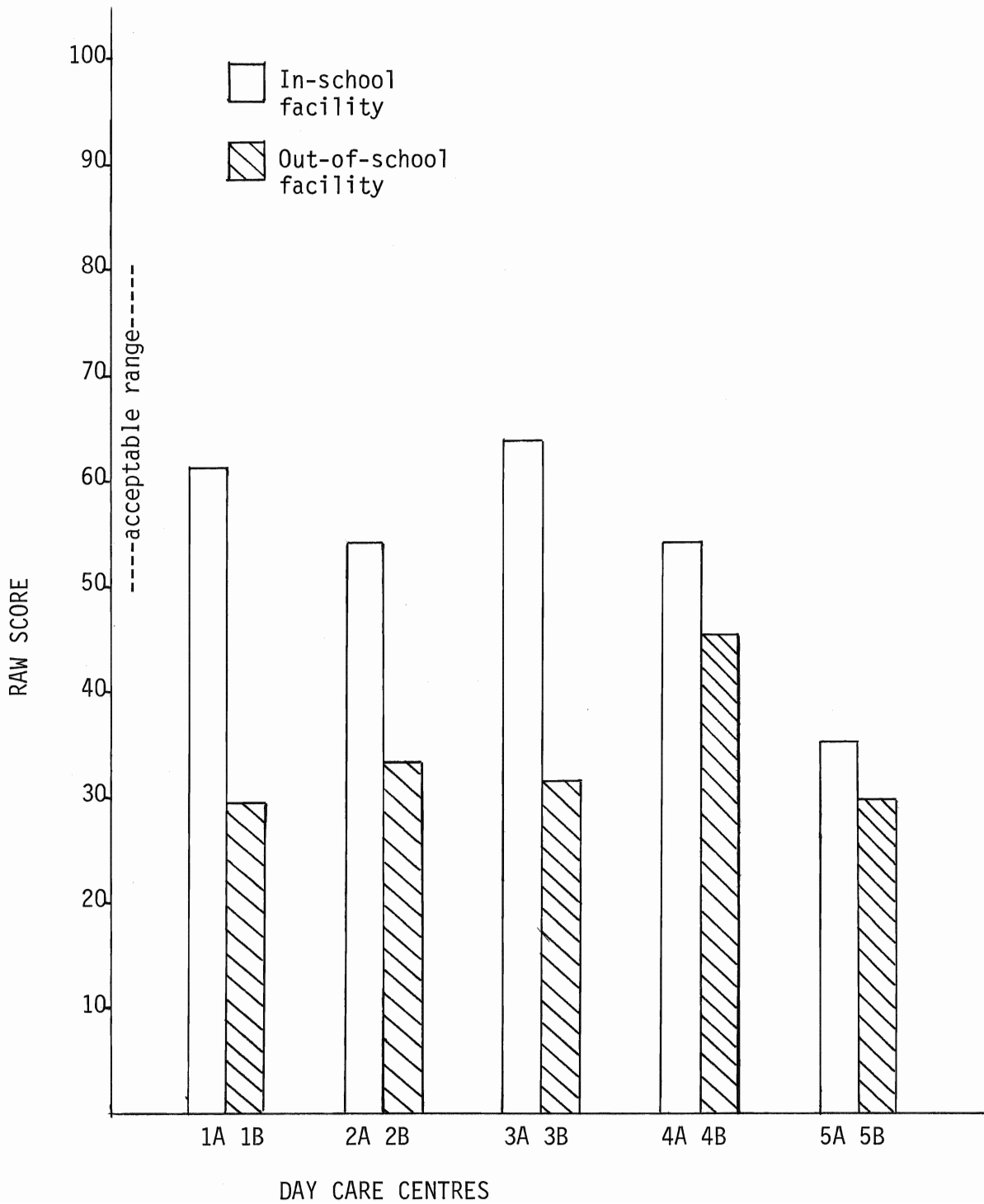
In order to examine the significance of this discrepancy, a one-tailed t-test was carried out. The t value required to achieve significance with eight degrees of freedom and .005 significance level was 3.3554. Results of this analysis show that the in-school and out-of-school day care centres differed significantly on the physical environment variable ( $t(8)=3.3554$ ,  $p<.005$  one-tailed).

The Fowler inventory examined both indoor and outdoor space. All out-of-school day cares scored in the deficient range for total quantity of indoor space. In contrast, only one in-school facility was considered deficient, with two scoring in the acceptable range and two in the exceptional category.

Bathroom facilities were far superior in the in-school centres since children had access to the large school washrooms with an average ratio of one washroom per four children. On the other hand in the out-of-school centres ratios for washrooms to children ranged from 1:7 to 1:12.

Staff facilities included office space and lounge areas. Although

Figure 2      QUALITY SCORES FOR PHYSICAL ENVIRONMENT VARIABLE



such facilities tended to receive higher scores for the in-school facilities this was not due to sharing such facilities with the regular school staff. In fact, only one of the five in-school centres had access to the school staff room.

Several other differences were apparent through observation, though they were not included in the inventory. Four of the five out-of-school facilities were situated in basements. The lighting tended to be poor and the areas were cold and damp especially in winter. On the other hand, all of the in-school facilities were brightly lit with either natural or florescent lighting. Although four out of five were situated in areas that were physically isolated from the rest of the school, none were in basements. Temperature control was maintained by the school janitor and conformed to board regulations. As well, school janitors must maintain a specific standard of cleanliness and are closely monitored by their supervisors. All in-school facilities were cleaned by the regular school janitor. In contrast, the out-of-school facilities hired their own cleaning people. Only one of the five out-of-school facilities was adequately cleaned. Two were indeed very dirty with wet floors and unvacuumed rugs. Three were desperately in need of a fresh coat of paint.

Four of the five in-school facilities were both attractive and inviting in appearance through displays of children's work and use of bright decorations. Classrooms in the out-of-school facilities varied in this area. Some displayed children's art work but other displays such as photographs and bulletin boards were minimal. The exception to most of these concerns for out-of-school facilities was centre 4B. It

was well-lit, well-maintained and brightly decorated.

In the outdoor space variable, all in-school facilities had exceptional scores. These centres had access to the grassed and hard surface areas of the schoolyards when not in use by school children. These areas are well-maintained by school personnel and are often treed with garden areas. Out-of-school facilities were mostly deficient in the outdoor space section although two centres scored marginally acceptable. Several had acceptable hard surface areas but were seriously lacking in the soft surface area. Although each of these out-of-school centres met the ministry guidelines for amount of outdoor area, there was a definite feeling of children "fighting for space" during outdoor play.

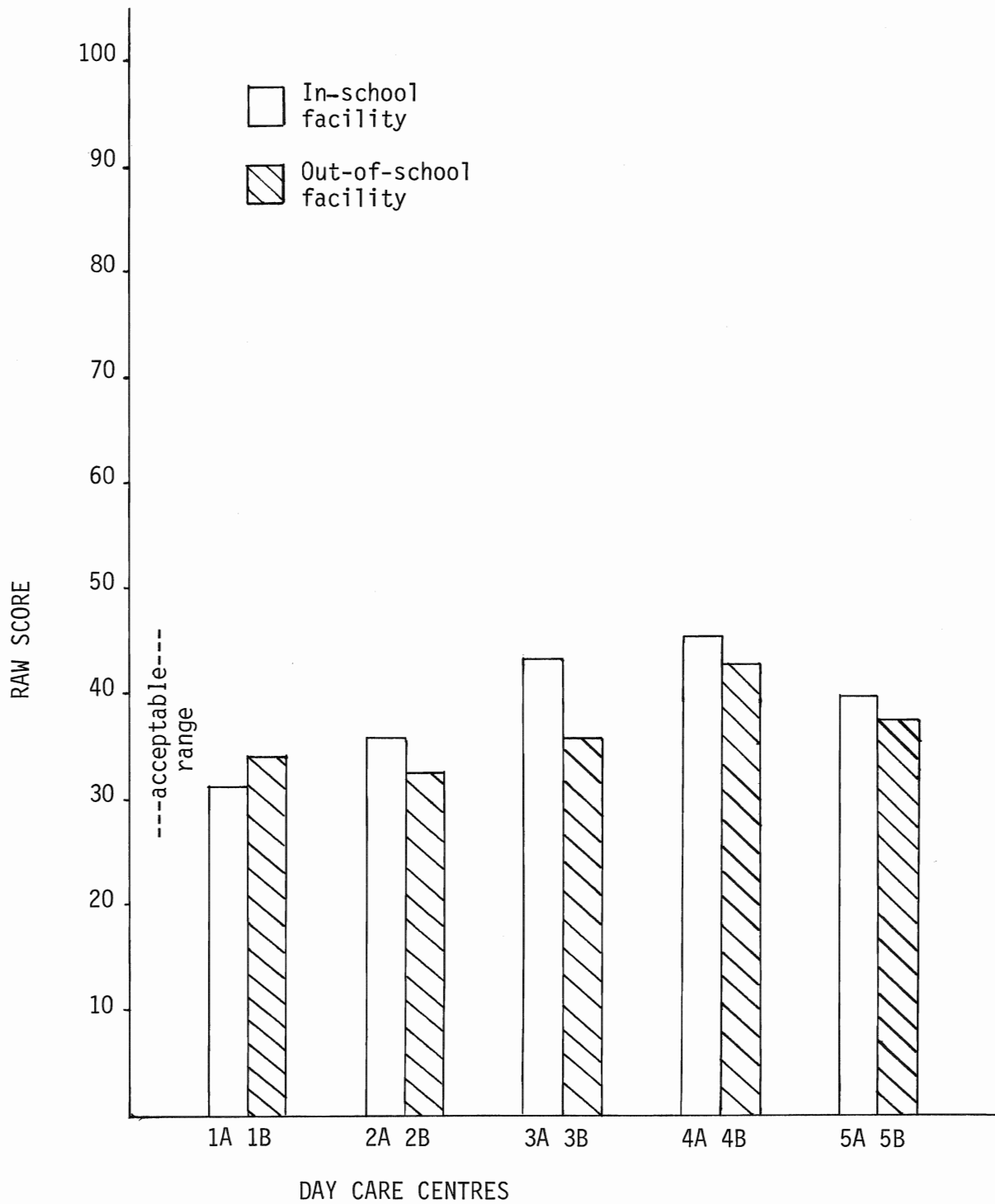
#### Adult Social Structure and Socio-emotional Environment

This segment of the inventory encompasses many variables - administration, staff co-operation, psychological atmosphere, parent and community involvement, staff qualifications, in-service education and staff evaluation. Inventory scores and participant observation showed considerable variability amongst the five out-of-school centres and amongst the five in-school centres.

Figure 3 shows the raw scores for all facilities on this variable. Any score between twenty-seven and forty-five is considered acceptable. All facilities scored within this range. Centre 4B approached the exceptional range and 4A had a marginally exceptional score of forty-five. Centres 1A, 1B and 2B scored in the low end of the acceptable range. Centres 3B and 2A scored solidly acceptable with Centres 3A and 5A in the high end of this category.

All five in-school facilities had well-qualified staff members with

Figure 3      QUALITY SCORES FOR ADULT SOCIAL STRUCTURE AND  
SOCIOEMOTIONAL ENVIRONMENT VARIABLE



three centres having adequate, on-going staff development programs. These same three centres had strong, communicative administrators who maintained an atmosphere of openness. Co-operative decision-making was an influential factor in their leadership style. As well, these three centres had established open communication lines with the public school teaching staff and principals and with outside agencies such as the Public Health Department and community mental health facilities. However, parental involvement in program planning was minimal.

Within the remaining two in-school centres, leadership styles varied considerably. Centre 1A was administered by an authoritarian director who made all decisions with minimal input from staff. Although the supervisor indicated in the interview that staff co-operation was extremely good, this was not evident to the investigator during her observation. Also, relationships with school personnel were described as "poor". The director claimed that the public school staff showed the day care staff very little respect and that day care workers were considered "second class citizens". This same expression was used by the supervisor of centre 2A to describe the school-day care relationship.

Unlike centre 1A, the supervisor of centre 2A did not appear to assume a strong leadership position and her staff showed her very little respect. She expressed concern to the investigator about an incompetent member of her staff but was not aware of the steps that could be taken to improve the situation. As a result, the staff seemed somewhat divided. Interestingly, this day care centre was opened by a concerned parent group. A board of directors oversees all decisions. Since neither the supervisor nor any other staff member have been invited to

sit on the board of directors, there is a definite feeling of helplessness with regards to change within this centre.

From the above data, it would appear that the total scores for adult social structure and socio-emotional environment are quite dependent on the leadership styles of the administrators. However, this is not as apparent for the out-of-school centres. Here there was much more variance in leadership style. Two of these centres (1B and 3B) were part of large corporate organizations where decisions were made at a head-office and passed on to staff members through the supervisors. The supervisor of centre 1B was quite caring but had very little influence in decision-making. Although she was friendly, she did not exude a strong sense of leadership. The supervisor of centre 3B was somewhat surprised by the investigator's findings and stated in a follow-up meeting, "I control my school and report to the company". She had been unavailable for the initial interview and had sent the assistant supervisor in her place. In a similar way, the supervisors of centres 4B and 5B presented as rather authoritarian leaders. Despite this, staff co-operation in these three facilities seemed quite good. There was an open, friendly feeling amongst the staff members and a regular system for staff relief time had been established. Centres 3B and 4B had adequate staff development programs, whereas 5B had none. Program schedules tended to be more formal and inflexible in these three facilities as compared to centres 1B and 2B.

The latter two centres were similar in several other aspects. The leadership styles of both supervisors would be described as laissez-faire and the staff members appeared to lack motivation and enthusiasm.



There was very little smiling or friendliness amongst the staff. Day care workers in both centres showed little evidence of upgrading their teaching methodology despite the fact that centre 1B had established an on-going staff development program. Centre 2B offered no such program to its staff. Contact with community resources and parents appeared to be superficial in both cases. These two facilities scored in the bottom 30% for the adult social structure variable and their scores were only marginally acceptable.

From the preceding observations, it is obvious that there is considerable inconsistency amongst the ten day cares involved in this study. It is therefore difficult to directly compare the in-school and out-of-school centres since their scores were very similar. However, in all but two of the day cares involved in this study, the in-school day cares scored slightly higher on this scale than the matching out-of-school facilities. The exception was centres 1A and 1B. A test for significance was completed. Results indicate that the scores were not significantly different ( $t(8) = .8125$ ,  $p < .05$  one-tailed).

All centres scored high on the staff co-operation variable based on the structured interview with the day care supervisor. With regards to staff qualification, six centres scored in the acceptable range while the remaining four were considered exceptional in this area. There was great variance in the parental involvement category. Four centres scored in the acceptance range, five in the deficient range and one in the exceptional area. Interestingly, the three centres that scored the highest overall in adult social structure (3A, 4A, 4B) scored the lowest in the parental involvement category.

Centres 2A, 4A, 5A and 5B scored in the exceptional area with regards to the openness of the psychological atmosphere. Centres 1A and 1B were marginally acceptable while the remaining four scored well within the acceptable range. The examination of leadership and decision-making showed that seven day cares scored within the average range. The remaining three were considered deficient in this area; centre 1A due to authoritarian leadership and centres 1B and 3B because of their corporate roots. In the area of staff evaluation, eight centres had developed an acceptable means of evaluating staff where the staff members were involved in an on-going evaluation based on ministry guidelines. Centres 2A and 2B relied on informal discussion as a basis of their evaluation.

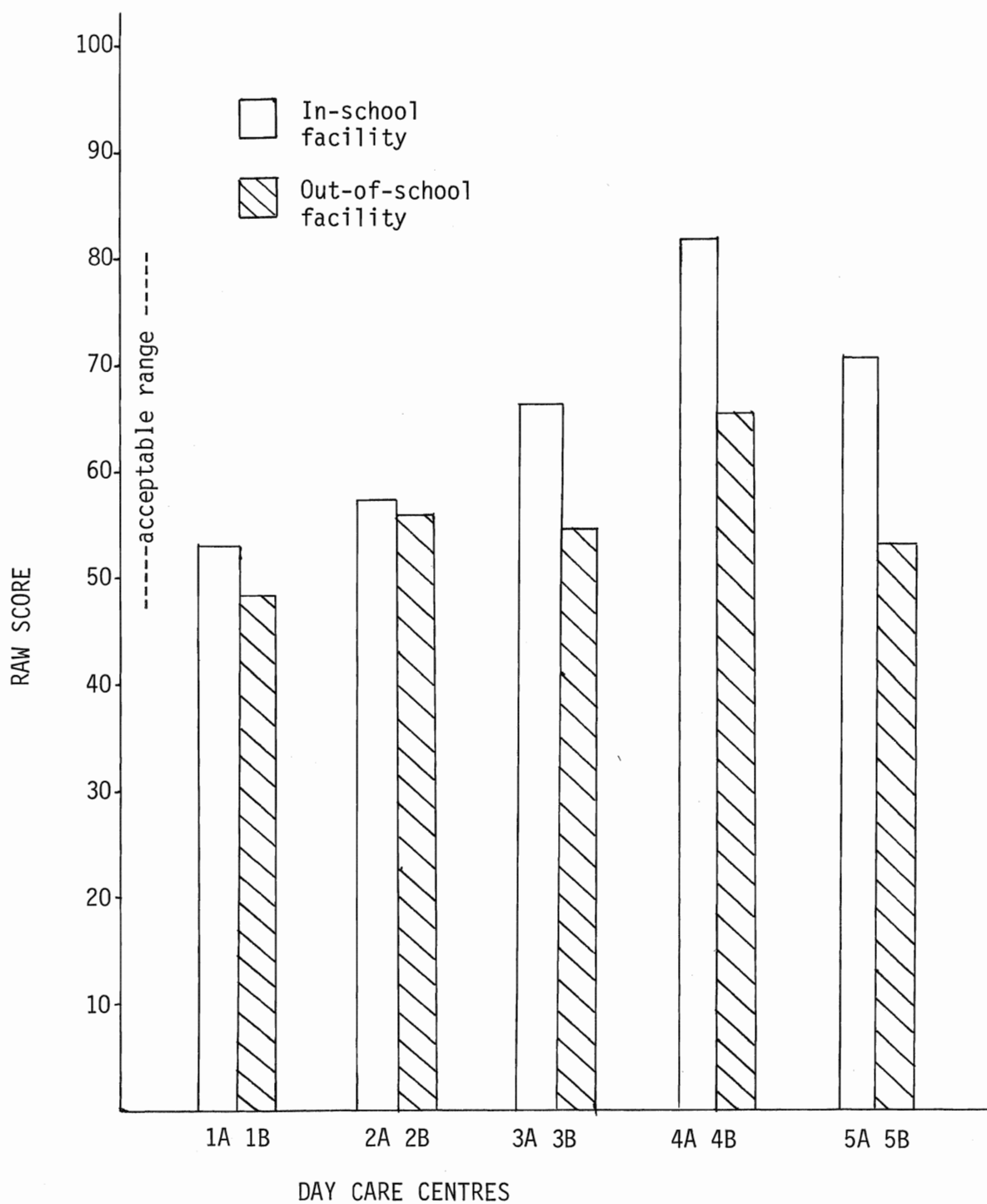
As suggested by the statistical analysis and supported by participant observation, there are considerable similarities and differences amongst the ten day cares with regards to adult social structure and socio-emotional environment.

#### Structure of Children's Socio-emotional Environment

Several dimensions of the child's socio-emotional environment are examined in the Environmental Profile. They are staff:child ratios, organizational characteristics, caregiving - teaching styles and program social goals.

Raw scores are shown in Figure 4. A score between forty-eight and eighty would be considered acceptable by Fowler's standards. All schools scored within this range except 4A whose score was exceptional. As well, for the in-school facilities, centres 1A and 2A scored in the low end of the acceptable range, whereas for the out-of-school centres,

Figure 4 QUALITY SCORES FOR CHILDREN'S SOCIOEMOTIONAL ENVIRONMENT VARIABLE



four centres scored in the lower part of the average range. Centre 4B was the exception with a score exactly mid-point in the acceptable category.

All in-school centres scored higher than their out-of-school counterparts. Statistical analysis indicates that although the difference approached significance it was not significant ( $t(8)=1.7966$ ,  $p<.05$ , one-tailed).

All schools represented in this study met the ministry requirements for staff:child ratios. This is closely monitored by ministry personnel. However, only centre 4A scored within the acceptable range on Fowler's inventory. Moreover, it was evident that ratios did not remain consistent throughout the day. Supervisors in centres 1A, 3A, 1B and 5B were included in staff:child ratios but were often involved in office duties. As well, teaching assistants were withdrawn to carry out extraneous duties such as preparing snacks and lunches or cleaning washrooms. Ratios for younger children were better than for older children. In fact after-school groups in centres 1B, 2B, 3B and 5B were extremely overcrowded since age groups were often combined and staff released in the latter part of the day.

The organizational aspect was further divided into three categories. All centres provided continuity for the children with child care workers remaining with the same age group for approximately one year. However, in every case there was limited exposure to different adults and always in the same fixed role. Scores in this area were grossly deficient. Routines and schedules were examined for flexibility. A good balance between spontaneity and consistent scheduling was found in 100% of the

in-school facilities. This balance was matched in only 60% of the out-of-school centres since the teachers in centre 1B seemed to lack the enthusiasm for creative endeavours and the schedules for centre 3B were dictated by the head-office which was located in another province of Canada. Although the supervisor emphasized that these timetables did not have to be followed, the published calendar of events was on display in each class and there was strong evidence to indicate that classroom programs followed the suggested guidelines.

The category of caregiving and teaching styles showed considerable difference between the in-school and out-of-school day cares. In the in-school facilities, 2A and 3A scored in the acceptable range, 1A was marginally acceptable with 4A and 5A being considered exceptional. In contrast, 60% of the out-of-school centres scored within the marginally acceptable area. Both 2B and 4B were acceptable.

An examination of the in-school facilities reveals that with few exceptions the teachers were positive and encouraging, responded to children with warmth and compassion, disciplined in a consistently kind but firm manner and showed considerable respect for the children. As a result, the children were calm, co-operative and followed the established rules and routines. Unfortunately, the teaching assistants in several instances needed training to avoid responding to children negatively and to learn the benefits of positive interaction with children. As well, one teacher in centre 2A continually responded in a harsh manner to the children in her care. She tended to nag and her manner with one child in particular verged on being cruel. Although the school supervisor was aware of this situation she made no attempt to encourage change.

Neither the supervisor nor the director of centre 1A showed evidence of respecting children as individuals. This was also apparent in the staff's interactions with the children. In contrast, the administrators of centre 4A held children in very high esteem and as a result had high expectations for the caregiving styles of their teachers and assistants. All staff exhibited an extremely professional and caring response to children. They were very perceptive in their interactions with children and were able to guide their students to constructive activities, thus preventing disruptions.

There was considerably more variance in the out-of-school environments. In centres 2B and 4B, conflicts between children were handled quite well with firmness and sensitivity. Teachers were warm and encouraging, showing respect for children. As well, the children were calm and co-operative. The supervisor in centre 4B was somewhat cold and impersonal but was sincere in her love of children. She had high expectations for her staff and they in turn related well with the students.

The atmosphere in centres 1B, 3B and 5B could be described as chaotic and tense. Children wandered about without guidance. There was very little interaction between staff and students except for discipline which tended to be harsh and negative. The teachers on several occasions ignored children after they had been sent to play in order to attend to other duties such as dusting and preparing lessons. In all three facilities, children approached the investigator for attention and in two instances the investigator eventually interrupted extremely unsafe play because the teacher was involved in lesson preparation rather than

active supervision.

Rules and routines were not well-established during either indoor or outdoor play. At one point a teacher sent twenty-four children to select their activities simultaneously. Needless to say chaos reigned. Children in these centres were both verbally and physically aggressive. As well, their play was quite destructive and they paid little respect to the play equipment.

The supervisor in centre 1B was quite weak. She expressed the feeling that her hands were tied since most decisions were made at head office. In contrast, the supervisors in both 3B and 5B were strong, confident women. The former was very business-like and seemed to be overly concerned with the public relations aspect of her job. The latter was a former British school teacher who disciplined through tough, external controls. As a result, when she was not present in the classroom, the children exhibited very little self-control.

The final category to be considered in the children's socio-emotional environment is the program social goals. All in-school facilities scored within the acceptable range with centres 1A and 2A falling in the lower end and centre 4A scoring in the marginally exceptional area. Scores for all out-of-school centres were acceptable. The greatest variance in scores was found in the area of the work and play balance. For the in-school centres, eighty percent believed in the integration of work and play supporting the idea that children learn through play. The exception was centre 2A where there was no evidence of play in one classroom and students were observed completing formal written assignments. In all centres except 1A, it was evident that

friendship and peer co-operation were encouraged. Most interaction in centre 1A was between children and adults and the children were involved in individual rather than co-operative play. Aggressive, unsafe activity occurred at times when they did attempt to play together. On the other hand, trainable-retarded youngsters had been integrated into the program in centre 4A with total acceptance by the other children. Also, in several centres, older children took responsibility for helping younger children on difficult tasks.

An emphasis on social goals was not as easily recognizable in the out-of-school centres. There was very little evidence of the integration of work and play except in centre 4B. A teacher in centre 1B indicated that play was merely for enjoyment and had no cognitive or creative value. As well, the supervisor of centre 5B said that children did not learn anything at school in senior kindergarten because all they did was play.

Friendship and co-operation were not overtly encouraged, the exception again being centre 4B. In the other four centres, the lack of rules tended to create peer conflict and the emphasis on external discipline left children dependent on adults to resolve these conflicts.

Although statistically there was no significant difference between the in-school and out-of-school day cares in the structure of the children's socio-emotional environment, the preceding qualitative analysis has revealed some relatively important discrepancies.

#### Cognitive Stimulation Program

Form 4 of Fowler's inventory examines the cognitive stimulation program. This area was divided into two major sections - the



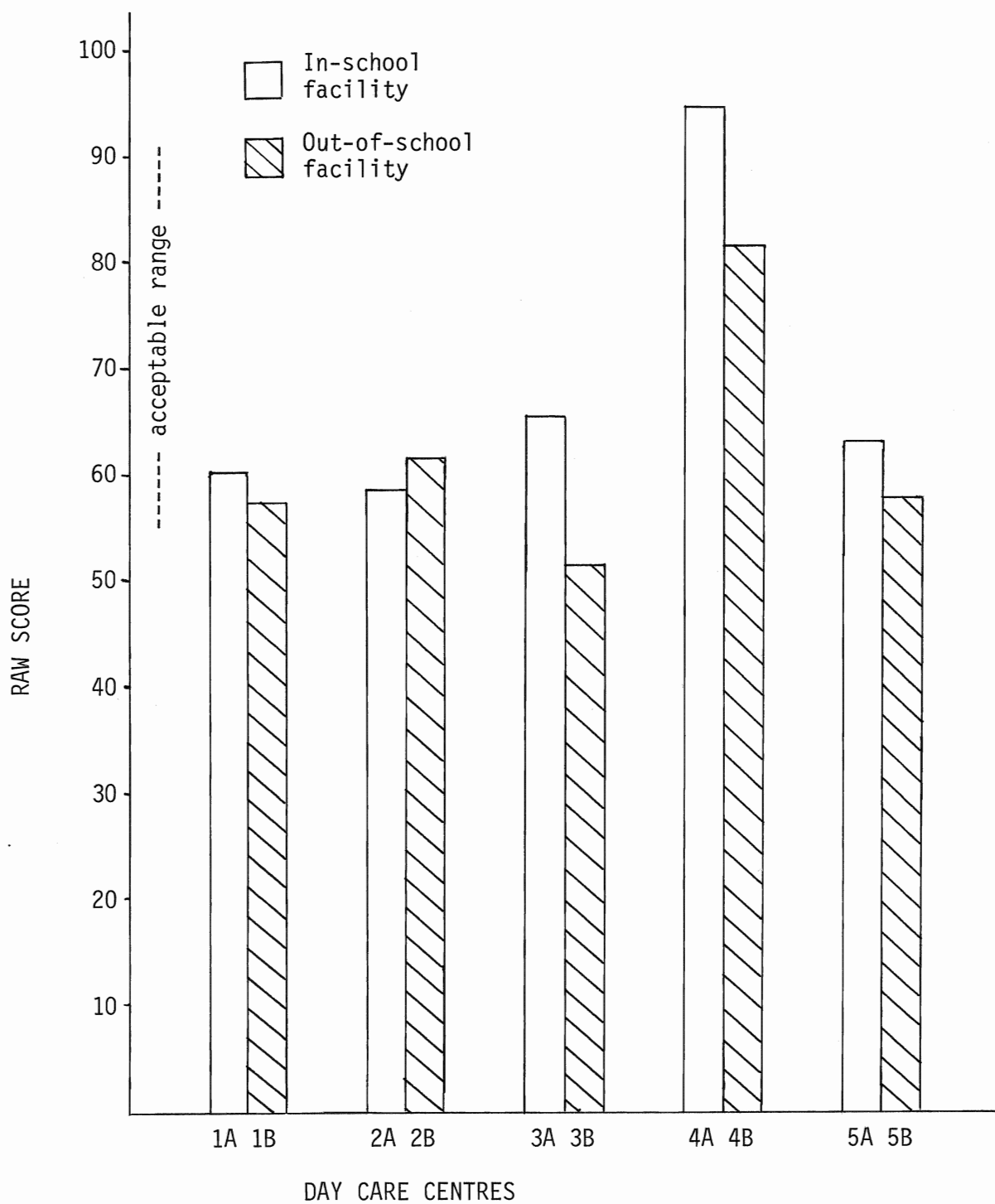
arrangement of materials and equipment and the modes of stimulation. The latter was further divided to include the quality of the guided learning program and the free play program.

A visual presentation of raw scores is found in Figure 5. A range in scores from fifty-four to ninety would be considered acceptable with scores from fifty-four to sixty-six being the low end of this category and scores from seventy-eight to ninety the high end. Only one school - centre 3B - failed to score at the acceptable level. However, with the exception of centres 4A and 4B who scored exceptional and highly acceptable respectively, the remaining seven centres scored in the low end of the acceptable category with centres 3A and 5A approaching the mid-range area. These values would indicate some concern for the cognitive programs in eighty percent of the schools examined.

The raw scores did not indicate any vast discrepancies between in-school and out-of-school centres. Statistical analysis revealed that there was no significant difference for the cognitive stimulation program variable ( $t(8) = .8333$ ,  $p < .05$ , one-tailed).

An examination of the arrangement of materials and equipment included the organization of activities by types of activity, developmental level and sequential arrangement. All of the day cares in this study presented materials so that they were easily accessible to the children. Seventy percent of the facilities paid close attention to the display of activities by type of activity. Materials were organized into such categories as construction centres, mathematics centres, library areas, playhouse centres, puzzle centres and games centres. The in-school exception was centre 5A a relatively new centre with a

Figure 5      QUALITY SCORES FOR COGNITIVE STIMULATION  
PROGRAM VARIABLE



limited amount of material making organization by any manner quite difficult. Materials in centres 1B and 5B were poorly organized. Attempts to organize by type of activity were evident but unsuccessful since children were not encouraged to return activities to their appropriate places. As well, displays in these centres tended to be untidy.

Organization by developmental level is defined as arrangement of materials by age and ability levels. In centres 3A, 4A, 5A and 4B the selection of materials in the various rooms (toddlers, juniors and seniors) showed that attention had been given to the stages of children's development. However, there was no indication that developmental levels had been considered in the remaining six centres. Toys were not selected for their level of difficulty and in fact some of the more advanced toys were found in the classrooms of the younger children and challenging activities were not available for the older students.

The final analysis of arrangement was organization by sequence. Evidence of this was found in only two settings - centres 4A and 4B. In both facilities a variety of sets of learning materials, sequentially graded in difficulty were available for learning concepts such as size, colour, number and time. This means that no sequential sets of learning materials were available in eighty percent of the day cares in this study.

The second major section under study in the area of cognitive stimulation was the modes of stimulation and led to an examination of the guided learning program. Considerable variation was discovered in this area. However, day cares housed in-school scored consistently higher with centre 4A scoring in the exceptional area, 3A and 5A solidly acceptable and 1A and 2A marginally acceptable. Contrarily, centre 3B

scored in the deficient range, centres 1B, 2B and 5B were marginally acceptable and only centre 4B was solidly acceptable.

An analysis of the two extreme cases will be helpful. In centre 3B, the learning program depended largely on commercial language and mathematics programs. The method of presentation was exceedingly pedantic. Children were taught in large groups, the material was presented in an abstract manner and the lessons allowed very little opportunity for interaction. The investigator observed a group of sixteen four-year-olds sitting in a circle, each with an identical book. The teacher turned on a tape recorder, a voice spoke the words written on the page of print and the children were asked to repeat the words. This program was used each morning with different tapes and books. Unfortunately though, the format for each lesson was identical. When questioned, the teacher was unaware of the current trends in beginning reading since the methodology employed by the neighbouring public school was unknown to the day care teachers.

On the other hand, the learning program offered in centre 4A was exceptional. Although there was one large group meeting each day, the learning program focused on the child as an individual. Learning sessions occurred daily through play. The use of home-made materials allowed for the manipulation of concrete material and was rich in the area of language stimulation. There was clearly an emphasis on the development of the child's imagination and the creative centre was always available to the children. Teachers at this centre were very aware of current trends in early childhood education. As well, day care personnel met with the public school staff every three weeks to discuss

the progress of each child and to ensure that neither repetition nor contradiction were occurring in the two environments.

Centres that scored in the marginally acceptable area (1A, 2A, 1B, 2B 5B) tended toward the more formal learning program described in centre 3B. Centres 3A and 5A offered aspects of both programs during the school day. The program offered in centre 4B approached centre 4A in its philosophy of learning.

The second mode of stimulation under study was the free play program. This aspect of programming was offered in all of the centres involved in this study. Again, centres 4A and 4B provided the most acceptable free play program. Play was offered several times during the school day. These periods of free play were well-supervised with active involvement of staff. The remaining eight day cares offered free play only twice each day - at the beginning and at the end. This is unfortunate in that children who arrive late or depart early have no opportunity to be involved in this important aspect of the day care program. As well, these times are when the fewest staff members are available. This leads to poorly supervised play periods. Interestingly, all remaining in-school centres scored in the marginally acceptable range, whereas the four out-of-school centres rated deficient.

Both statistical and qualitative analysis indicates that the cognitive stimulation environment is an area requiring considerable attention in the discussion chapter of this thesis.

#### Toys and Equipment

The Environmental Profile looked at two aspects of toys and equipment - both indoor and outdoor. Indoor equipment was further

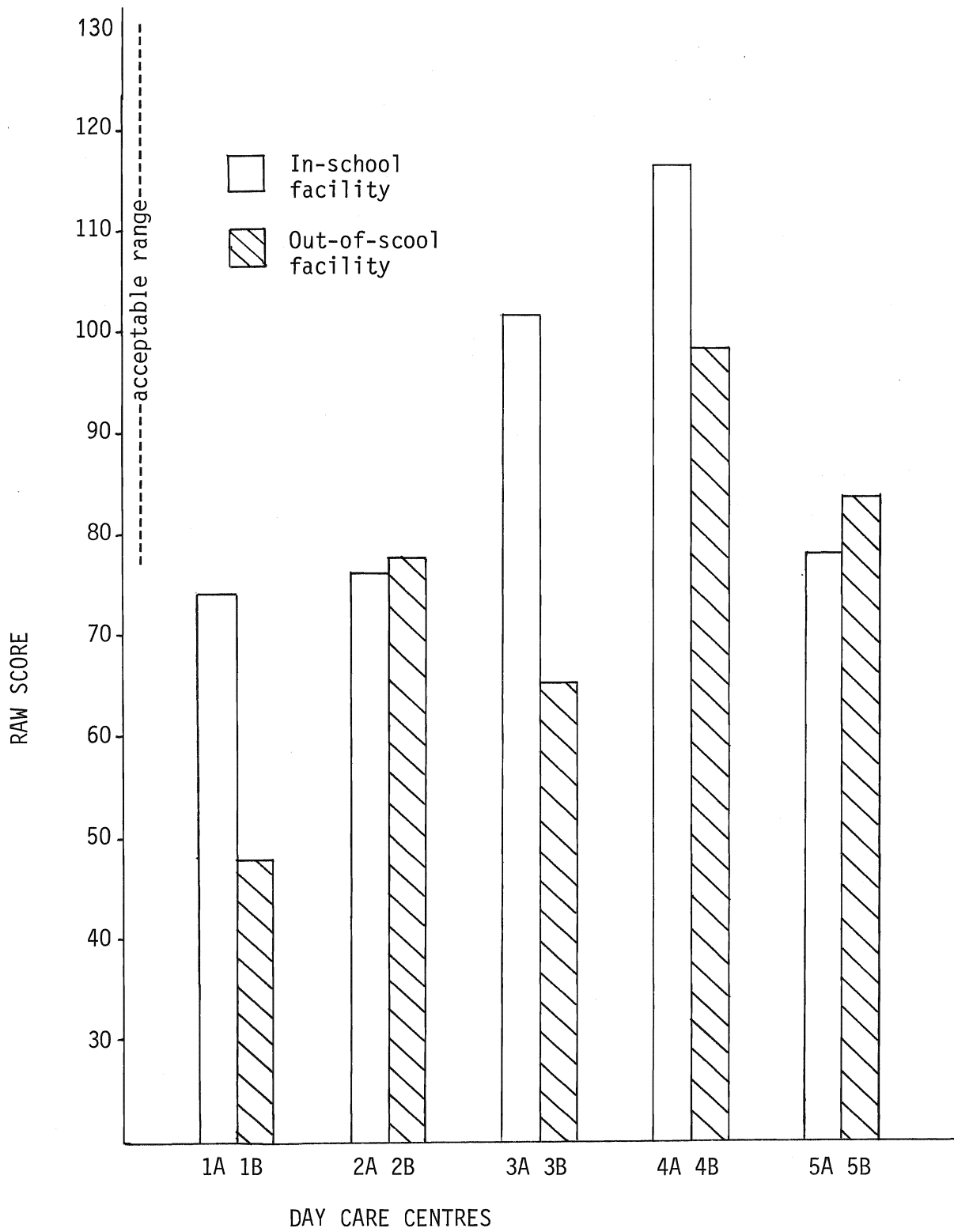
divided into the following categories - problem-solving and creative construction materials (including construction toys and free form materials), information and literary materials, props for sociodrama, musical toys and equipment and gross motor toys. The assessment focused primarily on the quantity of available material. Participant observation allowed the investigator to assess the quality of the equipment.

Total raw scores for the toys and equipment category are shown in Figure 6. Three of the in-school centres show marked differences with their matching out-of-school centres. In contrast, the remaining two centres show little difference, with the out-of-school centres scoring slightly higher. Results of a statistical analysis, indicate that there is no significant difference between the in-school and out-of-school results ( $t(8)=1.1528$ ,  $p < .05$ , one-tailed).

According to Fowler's criteria, any score between seventy-eight and one hundred and thirty would be considered acceptable. This means that for the in-school centres, 3A and 4A scored in the solidly acceptable range while 1A, 2A and 5A fell into the deficient area with marginal scores of seventy-four, seventy-six and seventy-six respectively. The variance within the out-of-school centres was much greater. Both centres 1B and 3B scored in the deficient area with 1B's score of forty-nine being severely deficient. Centre 2B was considered marginally acceptable while centres 4B and 5B scored within the acceptable range.

The quality of the toys and equipment available for indoor use in the in-school centres was very good with the exception of centre 2A. This means that for four of the in-school centres the toys were well-constructed, durable, safe and brightly coloured. This encouraged

Figure 6 QUALITY SCORES FOR TOYS AND EQUIPMENT VARIABLE



active manipulation and creative play. In centre 2A, the toys were quite old with faded colours. Boxes were broken and parts of toys and games were missing. Several of the larger pieces of gross motor equipment were broken with dangerously sharp edges exposed.

Similarly, concerns for the safety of children arose in eighty percent of the out-of-school centres. The equipment in these centres tended to be old with ragged edges and evidence of very little care. Although the supervisor of centre 3B assured me that new equipment was purchased yearly, the display materials were of poor quality. As well, the supervisor of centre 1B expressed serious concern regarding the quality of available equipment. However, funds from head office were not made available to allow the replacement of these materials.

In the area of problem-solving and creative-construction material, all in-school centres scored in the adequate range. These schools were extremely well-equipped with construction toys and structured materials such as puzzles. Although free form materials such as plasticene, crayons, chalk and paint were in abundant supply, they were not always available for use in centres 2A and 3A. Similarly four of the involved out-of-school facilities scored in the acceptable range for this variable. Again quantity of construction toys was high but available free form materials was limited. Centre 1B scored low in all areas.

Scores for information and literary materials revealed that half of the day cares were deficient in this area, with centres 2A, 3A and 5B scoring marginally acceptable, 4B solidly acceptable and 4A exceptional. There was a serious lack of available reading material for children including fiction and non-fiction books, magazines and pictures, Centre



4A had regular access to the school library and children were permitted signing privileges. Although children in centre 3A visited the school library, they could not remove books to their day care classroom. Centres 1A, 2A and 5A did not have access to the school libraries. This despite the fact that the library was directly across the hall from the day care classrooms in centre 2A. It was found that for all day cares use of the public libraries was minimal. In several centres (1B, 2B, 2A and 5B) book covers were torn, pages were marked and book storage was very untidy.

Three out-of-school centres were considered deficient with regards to props for sociodrama. One centre was marginally acceptable and centre 4B had the highest score for all assessed centres. Here there were several varieties of puppets, props, mock tools and costumes to stimulate socio-dramatic and occupational role play. All in-school facilities scored in the marginally acceptable range for this category.

Scores were similar for both in-school and out-of-school centres for the category musical toys and equipment. Six centres scored in the acceptable range with the remaining facilities scoring deficient. Records tended to be high in quantity but low in quality. Musical instruments, when available were shared amongst several classes. Very few home-made instruments were evident.

Indoor gross motor equipment was inadequate in six of the schools tested, marginally adequate in two, solidly acceptable in one of the schools and exceptional in one. Centre 3A scored highest in this area because the day care children had access to school gym equipment.

In the outdoor equipment area, hard surface area equipment and soft

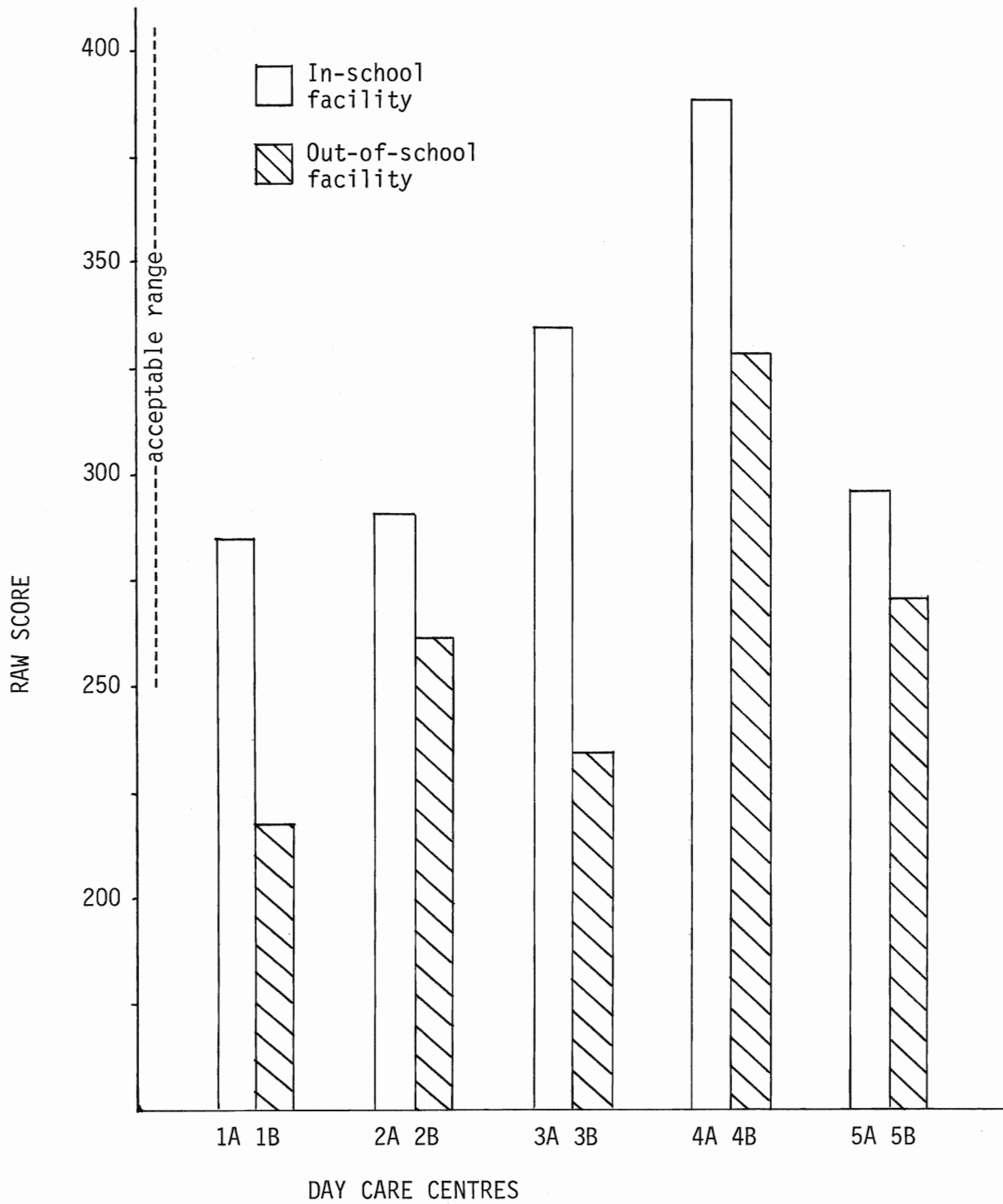
surface area equipment were assessed. Seven of the day cares scored in the deficient range for quantity of equipment such as tricycles, wagons, sandboxes, swings, slides and climbing apparatus. This equipment is very expensive and maintenance costs are steep. Two centres scored in the marginally acceptable range with only centre 4B having a solidly acceptable score. With a fairly minimal amount of space, centre 4B had set up a well-organized and safe outdoor play area. They had large rubber tires for climbing, rubber tunnels, swings, a large sandbox and a nature garden. Sturdy, reliable equipment had been purchased so that maintenance was minimal. As well, by using less sophisticated equipment, initial cash outlay was reduced.

As the statistical analysis infers, there are few overt contrasts between in-school and out-of-school day cares for the toys and equipment category. Indeed, the most serious areas of concern seem to apply to all centres.

#### Overall Quality

Overall quality scores were calculated by totalling the values for the entire set of dimensions. Raw scores are shown in Figure 7. A total overall score between 255 and 425 would be considered acceptable according to Fowler's criteria with scores below 310 falling into the low end of acceptable and scores above 370 being considered highly acceptable. All in-school centres scored within the acceptable range with centres 1A, 2A and 5A scoring in the low end of acceptable with scores of 278, 281 and 287 respectively. Centre 3A with a score of 336 would be considered solidly acceptable and centre 4A scored in the high end of the acceptable range with 391.

Figure 7 OVERALL QUALITY SCORES



Two out-of-school centres rated in the deficient category. Centre 1B scored 217 and centre 3B's total was 236. Both centres 2B and 5B scored in the lower end of the acceptable range with totals of 259 and 264 respectively. Centre 4B, with a score of 331 rated in the solidly acceptable area.

Statistical analysis for overall quality between the in-school and out-of-school facilities showed that the t-value closely approached the required value. This indicates that although there is no significant difference between the two types of schools, the difference closely approached significance ( $t(8)=1.825$ ,  $p < .05$ , one-tailed).

#### Effect of the Public School Setting

The interview with supervisors of in-school centres included a question regarding how they felt working within the public school setting. Responses varied enormously and are outlined in this section.

Centre 1A seemed uncertain about the day care's position in the school. The administrator expressed very negative feelings towards the school principal and concern about the minimal interaction between the public school and day care staff. Access to school audio-visual or gym equipment was non-existent. They disliked the sense of isolation they felt due to their physical location within the school building and found the restrictions imposed on them quite limiting. Since advertising was not permitted, considerable tension arose when nursery rhyme characters were painted on the centre's windows. As well, the day care staff have no access to the school building unless a member of the care-taking staff is available. Co-operation of the board of education was described as "not outstanding" and at the time of the interview, there

had been no follow-up through the board to determine if things were functioning smoothly.

Similarly, staff members of centre 2A felt the public school staff considered them "second class citizens". The supervisor felt this occurred because teachers feared losing their jobs if day care centres became powerful in education. As a result, the supervisor no longer attempted to build a relationship with the public school staff and the centre functioned as a totally separate entity. The day care had no access to the school staff room, gym or library even though the latter was directly across the hall from the centre. The investigator was informed about a time when used corrugated paper was being tossed in the garbage by a school teacher. When a day care worker expressed a desire to use this paper in her nursery classroom, the request was denied. Such incidents reflect a complete lack of communication between the day care and school in this setting.

Although centre 3A had been open for only one year, they had developed a good working relationship with the public school staff. They expressed considerable respect for the school principal who reflects carefully before granting or refusing requests and always explains her refusals. As well, the school staff have visited the day care and accept the children's presence. The two groups get together for special occasions such as puppet plays and bake sales. School audio-visual materials, duplicating machine and gym equipment are shared with the day care. The gym is available on rainy days and the school library is used every Monday morning.

Many of the advantages cited by centre 3A were consistent with

those mentioned by 4A, especially the sharing of equipment and school space. In addition, day care rooms in centre 4A were physically integrated throughout the school at the principal's insistence. This administrator stressed the importance of effective co-existence. He encouraged the development of good communication amongst the staff members by making the school staff room available to day care staff. Junior and Senior Kindergarten teachers met with day care workers every three weeks to discuss programming and concerns about individual children.

The day care administration felt that the school principal's participation had been the main reason for this successful co-existence. However, both the director and supervisor had worked in out-of-school environments and had several additional observations about the in-school environment. They observed that the actual physical environment was brighter and cleaner which was more motivating for the day care workers. As well, the school environment was professional and provided good incentive for the workers to maintain higher standards and perform in a more professional manner. The fact that all children from ages two to eleven were together in one building encouraged a feeling of community. Also, the day care had more credibility in the parents' eyes because it was felt that unless things were well-run, the school would not allow the day care to continue to function.

Despite the fact that centre 5A had been in existence only three months (two of those during the school summer holiday period), it was felt that the communication lines between the school and day care were opening. School teachers had been invited to visit the day care and had

eagerly done so. The director stressed that the two staffs held mutual feelings of respect and that further sharing was possible in the future.

### Attitude Towards School

Attitude towards school is defined as either a positive or negative attitude. The tool used for assessment was the Arlin-Hills Attitude Toward Learning Processes-Primary. Pertinent data are shown in Table 2. The determination of positive or negative attitude was based on a score of 20. All scores above this were considered positive and below negative.

Table 2

### Attitude Towards Learning Processes

Day Care Centre	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B
Number of Children Assessed	8	17	6	14	14	15	15	29	19	3
Mean Scores	15.4	15.8	21.2	18.4	20.5	16.1	17.1	14.8	15.8	23.0
Attitude	Neg.	Neg.	Pos.	Neg.	Pos.	Neg.	Neg.	Neg.	Neg.	Pos.

In order to determine if significant differences existed between matching day cares, one-tailed t-tests were used. Attitude scores for centres 1A and 1B were not significantly different ( $t(23) = .1762$ ,  $p < .05$ , one-tailed). No significant difference was found between centres 2A and 2B despite the fact that centre 2A scored in the positive range and 2B in the negative ( $t(18) = 1.0769$ ,  $p < .05$ , one-tailed). However, a significant difference did exist for centres 3A and 3B ( $t(27) = 2.5287$ ,

$p < .05$ , one-tailed). As well, centre 3A scored positive and 3B negative. Although the difference between centres 4A and 4B approached significance it was not significant ( $t(40)=1.9167$ ,  $p < .05$ , one-tailed). Both centres scored in the negative category. Due to an inadequate sample size in centre 5B, results were considered worthless for analysis.

A comparison of the mean scores between in-school and out-of-school centres revealed that there was no significant difference for this dimension ( $t(6)=1.5190$ ,  $p < .05$ , one-tailed).

To determine if a difference in overall quality score is reflected in a difference in attitude score, Table 3 lists the ten day cares in ascending order of quality as well as the corresponding attitude scores. There was no association.

Table 3  
Quality Scores with Corresponding Attitude Scores

Rank	Day Care	Quality Score	Attitude Score	Rating
1	1B	217	15.8	negative
2	3B	236	16.1	negative
3	2B	259	18.4	negative
4	5B	264		
5	1A	278	15.4	negative
6	2A	281	21.2	positive
7	5A	287		
8	4B	331	14.8	negative
9	3A	336	20.5	positive
10	4A	391	17.1	negative



### Summary of Findings

The major quantitative findings from the study are given in Table 4. For all five variables the breakdown for in-school facilities was as follows: four percent of the scores were in the deficient range, thirty-six percent in the lower acceptable range, twenty-eight percent in the middle acceptable area, sixteen percent in the highly acceptable category and sixteen percent of the scores were in the exceptional range. On the contrary, scores for out-of-school centres were quite different. Deficient scores accounted for thirty-two percent of the assessed variables. Forty-four percent of the scores were in the low end of the acceptable area, sixteen percent scored in the mid range and eight percent scored in the highly acceptable range. None of the out-of-school day cares scored exceptional on any variable. This means that forty percent of the in-school scores were either deficient or low average compared to seventy-six percent of the out-of-school scores. These figures partially support the hypothesis that in-school facilities provide better quality day care than out-of-school facilities.

In-school and out-of-school centres scored significantly different on the physical environment variable and approached significance for children's socio-emotional environment as well as overall quality. Qualitative analysis supported these differences. Although there were no significant differences for the remaining three variables, qualitative analysis revealed important differences not included in Fowler's inventory. This was particularly evident for the two variables cognitive stimulation program and adult social structure. Interestingly, differences among facilities with like environments were noted.

TABLE 4

VARIABLE	Physical Environment						Adult Social Structure & Socioemotional Environment						Children's Socioemotional Environment						Cognitive Stimulation Program						Toys & Equipment						Overall Quality					
	IN			OUT			IN			OUT			IN			OUT			IN			OUT			IN			OUT								
Deficient Score	1			5			0			0			0			0			1			0			2			0			2					
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H						
Acceptable Score	0	4	0	0	0	0	1	1	2	2	2	1	1	1	1	4	1	0	4	0	0	3	0	1	3	1	1	2	1	0	3	1	1	2	1	0
Exceptional Score	0			0			1			0			2			0			1			0			0			0			0			0		
Statistical Results	significant difference **						no significant difference						approached a significant difference *						no significant difference						no significant difference						approached a significant difference *					
t-test Results	t(8)=3.3554 p < .005 one-tailed						t(8)=.8125 p < .05 one-tailed						t(8)=1.7966 p < .05 one-tailed						t(8)=.8333 p < .05 one-tailed						t(8)=1.1528 p < .05 one-tailed						t(8)=1.825 p < .05 one-tailed					

\* .05 level of significance  
\*\* .005 level of significance

Key: IN - In-school facility      L - low score  
OUT - Out-of-school facility    M - mid score  
   H - high score

Qualitative results fully support the investigator's hypothesis with regards to quality of care.

Results of the attitude survey indicate that there is no direct association between quality of day care and attitude towards school or that attendance at an in-school day care affected the child's attitude. Centres 3A and 3B were the only centres to achieve a significant difference for their attitude scores. As well, these two centres had the greatest difference in their quality scores (100 points). Scores for centres 4A and 4B approached significance and their quality scores differed by 60 points. However, quality scores for centres 1A and 1B differed by 61 points and their attitude scores were definitely not significantly different. These findings provide very little support for the hypothesis that the attitude scores of children attending in-school centres would be better than the attitude scores for out-of-school day care attenders.

## CHAPTER IV

### DISCUSSION

#### Introduction

The primary purpose of this study was to determine if the day cares housed in public schools provided higher quality care than day cares housed in other facilities. Secondly, attitudes of young children were assessed to determine if those attending in-school day cares had a better attitude towards learning than those attending other centres. As such, this discussion will initially focus on the quality assessments and conclude with a discussion about children's attitude.

As anticipated from the review of the literature, lack of quality control was revealed in the wide variance of quality scores for the ten day cares under study. Overall quality scores on a scale of six hundred, varied one hundred and seventy-four points between the two extremes. This was despite the fact that all centres were approved and licensed facilities. These findings lead the investigator to agree with William Fowler's (1980) concern that day care has been accepted before definite standards have been established. An examination of each of the variables involved in the assessment will be helpful to determine their complex interactions and the influence each has on the quality of the day care.

#### Physical Environment

As Table 4 indicates all out-of-school facilities scored within the deficient range compared to only one in-school centre. The remaining in-school centres scored in the mid-acceptable category. These differences were significant.

Indoor space tended to be far superior in the in-school centres.

School bathroom facilities were shared by the day cares in all five centres. The two in-school centres that scored in the exceptional range for indoor space also had some access to the staff lounge, gymnasium and library. It is likely that all in-school centres would have scored much higher for the physical environment variable if co-operation between school and day care staff involved sharing all available space. One such day care existed in this study. Considerable sharing of space and physical integration of classrooms throughout the school also led to the sharing of ideas and concerns and a team approach to solving the problems of co-existence.

As well, the high standards for cleanliness, lighting and temperature control made the in-school classrooms seem more pleasant. Also, the classrooms were on the whole attractively decorated much like the regular school classrooms. The investigator suggests that these factors make a positive difference to the energy levels and motivation of both the teachers and children which in turn positively effect several other variables in this study such as adult social structure and socio-emotional environment, children's socio-emotional environment and the cognitive stimulation program. In contrast the out-of-school centres tended to be dimly-lit, damp and dirty.

All in-school facilities had exceptional scores for outdoor space. Again, access to school space and excellent maintenance by school personnel made a considerable difference. Out-of-school facilities generally lacked space despite the fact that ministry requirements had been met. Equipment was crammed into the available space which seemed to encourage conflict amongst the children.

An examination of the individual scores for physical environment and overall quality reveals that there was an association between the two. The six facilities that achieved the best quality scores in physical environment also scored in the top six for the overall quality category. This suggests that a day care whose physical environment is of good quality both spatially and aesthetically will likely be a day care of overall high quality. It follows then that since the in-school facilities score significantly better in the physical environment category, day cares housed in public schools stand a strong chance of being high quality facilities. This supports the Toronto Board of Education trustees' allegations in 1981 that high quality environments were available through the school system (Parker, 1981).

#### Adult Social Structure and Socio-emotional Environment

Although statistical analysis showed that there was no significant difference between the in-school and out-of-school scores for this variable, Table 4 indicates that there were some quantitative differences. Whereas three out of five of the in-school centres scored in the highly acceptable or exceptional range, only one of the out-of-school centres did so.

Interestingly, the three in-school day cares mentioned above were all administered by leaders with a strongly democratic style. As well, the one out-of-school centre that scored in the highly acceptable range was led by a supervisor who although somewhat authoritarian had strong democratic tendencies. These four centres also scored in the top four for overall quality. In fact, the ranking for the adult social structure variable matched the ranking for overall quality. This supports

Fowler's (1980) claim that an administrator with strong democratic leadership skills is an important component of high quality day care.

He also stressed the importance of well qualified staff and the presence of an on-going in-service program. The previously mentioned democratic leaders had high expectations for their staff members, hired only competently trained people and had developed thorough systems of evaluations. When staff members did not perform capably, they were assisted towards improvement or released from their job.

A position held by the investigator and introduced in Chapter I of this research is that a requirement of an adequate day care centre is for the staff members to model acceptable behaviour. This would include such moral issues as co-operation amongst staff members, feelings of mutual respect, appropriate methods of conflict resolution, flexibility and openness. The democratic leaders stressed each of these values with their staff. There seemed to be a recognition that adults would treat children only as well as the adults themselves were treated by their peers. In the school where teachers exhibited an extremely negative attitude towards the children, the relationships amongst staff members were not good. The administrators tended towards laissez-faire management techniques and ultimately had very few expectations for staff behaviour.

As a result of these findings, the investigator contends that the key factor to a successful day care centre is the presence of a strong, democratic leader. Not only does the leader establish the psychological atmosphere of the environment, but he/she hires and evaluates staff, supervises the cognitive program, purchases toys and equipment, oversees

the cleanliness and safety of the facility and in some cases selects the actual physical environment.

Many facets of an in-school environment would benefit the adult socio-emotional variable. The day care administrator who establishes a good working relationship with the school principal has a colleague with whom to discuss administrative concerns. As well, the professional deportment of the school teaching staff could positively influence the professionalism of the day care workers if mutual respect is present. Here again, the administrative bias is very important.

#### Structure of Children's Socio-emotional Environment

Much research has been done with institutionalized children to determine the emotional effects of their environment. These effects were very much dependent on the quality of care given to the children. Affective responses to day care environments were examined in the Seitz, Apfel, Rosenbaum and Zigler (1983) studies. They discovered that "interventions aimed at improving cognition alone are likely to be relatively inefficient" (p.330). It is the opinion of this investigator that the socio-emotional effects of day care are very much dependent on the child's experiences of positive and plentiful human interactions. It is the latter that is the focus of this segment of the discussion.

As Table 4 indicates, the difference in scores between in-school and out-of-school centres approached significance with four of the in-school day cares scoring mid-acceptable or above compared to only one of the out-of-school centres.

All schools involved in this study met ministry requirements for staff:child ratios. However one can postulate that the better the



staff:child ratio, the better the quality of care since adults would have more opportunities to interact with individual children. This argument is strengthened by the fact that the school with the lowest ratio also scored the highest for the socio-emotional environment variable. The small ratio allowed programming to be more individualized and there were frequent opportunities for adult/child interaction. The adults were very loving towards the children as exhibited by frequent positive touch, smiling and verbal praise. This corroborates Gerhardt's (1973) premise that touching and being touched are important facets of a healthy environment. As well, in the high scoring schools discipline tended to be a positive experience with a learning component. Often, a child's misbehaviour was dealt with by redirecting the focus thus preventing conflicts between children and creating a calm, relaxed environment. Contrarily in schools where tension and chaos prevailed, teachers tended towards autocratic control. Fowler emphasized the encouragement of self-control, autonomy and co-operation recognizing their importance in the well-balanced personality.

These formative years are very influential in emotional development. It is difficult to consider the influence that an overbearing, negative teacher might have in the lives of the children they work with. The fact that this kind of behaviour was observed in several day cares supports Levine's (1978) concern that the current system of regulating day care is inadequate. He went on to say that quality control could be more closely monitored if day cares were housed in the public schools.

### Cognitive Stimulation Program

A review of Table 4 indicates that the cognitive stimulation program is an area of serious concern in the day cares under investigation since eight of the ten facilities scored in the low acceptable or deficient range. There was no significant difference between in-school and out-of-school environments.

Piaget (1926) asserts that play has a strong influence in the psychological development of the child. Current research corroborates this theory. Accordingly Fowler emphasizes the play component in his assessment of the cognitive stimulation program. He describes the ideal cognitive program as a "comprehensive concept and skill-oriented program, covering a diversity of topics with an emphasis on language, number, pre-reading or reading, and perceptual-motor concepts and skills" (p.172). It should include "flexible and imaginative teaching methods, including play and peer interaction, developmentally paced and stimulating" (p.172).

Fowler's assessment scores show that organization by both developmental level and sequence of activity was lacking in the majority of centres. Day cares weak in the guided learning program tended towards didactic programs that emphasized abstract learning and allowed very little peer interaction. Most lessons were taught in large groups. In addition, these same centres put little emphasis on the free play program - scheduling it in at the beginning and end of the day when adult supervision was the weakest (due to higher child:teacher ratio) and many children were not present.

It is the investigator's opinion that the prime reason for

inadequate programming was a lack of knowledge on the part of the day care workers. Classrooms that were visited in this study tended to encompass children ages four to seven. Unfortunately, early childhood programs offered for certification at community colleges focus on programs for the younger child. Current trends in education for the four to seven year old child emphasize that play continues to be an important component of the program. A well-structured play environment stimulates creativity, experimentation and discovery - all of which are important aspects of the learning process. Also, it allows the child to interact with his environment in a concrete manner.

It is the responsibility of the day care teacher to structure a child-centred environment that invites the child to learn. Unfortunately, many day care workers and supervisors remain unaware of the importance of play when planning a program for this age group. As a result of this lack of knowledge, programs for older children tend to be overly-structured utilizing rigid and formal teaching methods. Lessons tend to focus on abstract concepts such as paper and pencil tasks and rote learning. Such programs are more teacher-centred than a play program and are less demanding in terms of teacher time. Adult supervision of a play program is a key factor in its success. It requires that the adult constantly interact with students on an individual basis as well as remaining aware of on-going activity throughout the room. The development and implementation of such a program require educational background in its philosophy, support from administrators and an enormous supply of energy and enthusiasm.

Many of the day cares involved in this study lacked all of these

### Attitude Towards School

Research completed for the 1975 Consortium for Longitudinal Studies focused primarily on the cognitive domain since tests in the area of socio-emotional development were found to be inadequate. Nine years later at the time of the present study, the investigator concurred with this suggestion. The selection of a suitable instrument was very difficult since limited research has been carried out in this realm. The instrument chosen - The Arlin Hills Attitude Survey (1976) - was revised by the investigator in order to eliminate ambiguous questions. Since pretesting had been carried out by Arlin and Hills, it was felt that pilot testing by the investigator was not required. However, concerns that arose during the testing are outlined in the following section.

The format was confusing for the children. The questions were grouped together very closely on the page and as a result the children required considerable guidance to ensure that they were answering the correct question. As well, children had difficulty differentiating between the responses - yes, usually, sometimes and no - despite the pre-teaching of these definitions. This test was designed to be administered to a group. However, the five-year-olds were reluctant to make such decisions on their own and wished to confer with their neighbour. At times their responses were swayed by another child's response. The investigator's final concern was that the testing procedure required much longer than the test manual indicated. The administration of the survey lasted approximately one hour which is a long period of time for young children to attend to one task.

Several concerns arose during the analysis of the data. The selection size varied considerably in the centres and in one centre only three children completed the survey. As a result scores from this centre and its counterpart could not be included in the analysis. Although data from all remaining schools were included in the analysis, variance in selection size was a major concern.

A second concern was the time element. Tests were administered at the end of the school day when children were tired and attention spans short. There were occasional disruptions during the testing procedure when children were picked up by their parents.

The investigator's final concern is that of the effect of several extraneous variables on test results. In one school trainably retarded youngsters were integrated into the program. They completed the survey and the influence of their responses on the mean score was uncertain. While investigating the effects of day care on intelligence and achievement, Williams and Cole (1968) discovered that many factors influenced the results. Similarly, the investigator contends that many extraneous variables not considered prior to the administration of the test influenced the results. They were sex of the child, age of the child, family size, socio-economic status and length of time in day care. Such variables were described as "independently functioning variables" by Charles Harper (1978).

Due to the vastness of contaminating variables, the investigator feels that the results of the attitude survey did not adequately assess the effect of the physical environment on the child's attitude. As such, further discussion of the results is not possible.

### Chapter Summary

An examination of the study's findings revealed that complex interactions of many aspects of the environment influenced the overall quality of the day care centre. Physical environment had a strong influence on the remaining variables. A pleasant, spacious environment was found to be helpful in maintaining positive energy levels thus encouraging good interactions amongst the adults as well as a high degree of motivation. Day cares housed in public schools had definite advantages because of their physical environment. Some were able to use additional indoor and outdoor space. Connections with the public school teaching staff proved beneficial for discussions about programming and individual children. Also, toys and equipment were loaned to the day care. It was discovered that the degree of sharing was largely dependent on the two staffs working as a co-operative team.

This latter statement reveals the degree of importance of the day care administrator. A strong democratic leader was seen to be an asset to the day care since he/she influenced all other aspects of the environment. The quality of the cognitive stimulation program as well as the kind of human interaction present were largely dependent on the administrator's expectations and leadership style.

The discussion shows that both quantitative and qualitative results supported the investigator's hypothesis that in-school day cares provide higher quality care than out-of-school day cares. Unfortunately, contaminating variables prevented the investigator from adequately assessing the effects of in-school day care on the children's attitude towards school.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary

This study examined the quality of day care environments. An instrument called The Environmental Profile (1980) was used by the investigator to test the first hypothesis - Day cares housed in public schools will provide higher quality care than out-of-school day cares. The second hypothesis dealt with the children's attitude towards school. The investigator hypothesized that children attending in-school facilities would have a better attitude towards school than those attending out-of-school centres. The instrument used to assess attitude was the Arlin-Hills Attitude Survey (1976).

Five out-of-school centres found in an urban centre in Ontario, Canada were randomly selected to participate in this study. These schools were then matched by geographic location with five in-school centres. This means there were a total number of ten respondents. Data concerned with the quality assessment were collected by observation and interview. Attitude surveys were administered to children aged five, six and seven. Quantitative data were analyzed using simple one-tailed t-tests. A triangulated methodology was used to analyze qualitative data.

Data were organized into categories according to the following factors which were the basis of the quality assessment: physical environment, adult social structure and socio-emotional environment, children's socio-emotional environment, cognitive stimulation program, toys and equipment and overall quality. Quantitative analysis revealed

that scores for in-school and out-of-school centres were significantly different on the physical environment variable and approached significance on the children's socio-emotional environment variable and on the overall quality. Although quantitative analysis showed no significant differences for the remaining three variables, qualitative analysis revealed noticeable differences between in-school and out-of-school centres for each dimension.

The relevance of these significant differences must be examined at this time since the reliability of the quantitative scores is a matter of serious concern for the investigator. The lack of pre-testing with an additional unbiased tester and the fact that assessments were completed by only one person is seen as a major limitation of the study. This suggests a degree of caution in the interpretation of the scores.

It was discovered that the two variables most influential in determining the quality of the day care environment were physical environment and adult social structure. It would appear that there is a relationship between the latter and several other variables. Personal qualities of the administrator were revealed through the choice of physical environment, the degree of co-operation amongst staff, the attitude of the day care workers towards the children and through the quality of the cognitive program. The investigator felt that the physical environment strongly affected the energy and motivational levels of the day care staff which in turn influenced many aspects of the overall quality.

Due to the strong influence of the physical environment and the



fact that in-school day cares scored significantly higher than out-of-school centres, it was concluded that nurseries housed in public schools had a distinct advantage over those housed elsewhere. This was particularly evident in centres where day care and public school staff worked together co-operatively. In fact, successful co-existence was seen to be an essential component of high quality care.

Analysis of the data concerning children's attitude revealed no significant differences between in-school and out-of-school centres. Moreover, it was not possible to make any associations from the research findings. The investigator had serious concerns regarding the validity of the Arlin-Hills Attitude Survey (1976) and the presence of contaminating variables affected the attitude scores.

#### Conclusions and Implications

This research, exploratory in nature, focused on the quality of children's day care in five in-school and five out-of-school centres. The study revealed that the quality of the physical environment was indeed an important factor in determining the overall quality of a day care. As well, it was discovered that several other factors were influential. It is the intention of the investigator in these concluding statements to conceptualize the ideal day care environment. This model will be based on the results of this study and include implications for the future of the day care movement.

Research findings indicate that day cares housed in public schools provide an environment of good overall quality. This is particularly evident in centres where physical space, facilities and equipment are shared with the regular school staff. Successful co-existence and

integration of the day care within the regular school environment is largely dependent on the working relationship between the day care administrator and the school principal. Ideally, each should be a strong democratic administrator and exhibit considerable respect for the other leader.

At present within most boards of education in the Province of Ontario, Canada, there is no official connection between the two administrations. However, it is possible that the future of day care rests within the realm of the Ministry of Education rather than with its present affiliate the Ministry of Community and Social Services. Another possibility is that the present ministerial connections remain the same with an individual or group bridging the gap between the two ministries. This could be accomplished through the appointment of a consultant affiliated with the individual board of education who was responsible for overseeing the smooth operation of the day care centres housed within his/her jurisdiction. This consultant specially trained in early childhood education could also be responsible for quality control through yearly evaluations and regular assistance. The latter could be in the form of in-service workshops, program development and implementation, lesson demonstrations and parent education. It is important that the board of education accept some responsibility for the quality of day care provided since public response to the in-school centres reflects upon the school.

Quality control assessments should be based on the dimensions examined in this study - physical environment, adult social structure, children's socio-emotional environment, the cognitive stimulation

program and toys and equipment.

At present Ministry guidelines state that staff/child ratios for children ages five to nine must be no higher than 1:15 with a maximum of thirty children in one grouping. The investigator contends that in order to maintain a high quality day care environment, ratios be lower for this age group with a substantially smaller maximum in one grouping. Not only would discipline problems decrease due to sheer numbers but staff would not be overwhelmed by the demands of these young children. The workers would be better able to respond with warmth and sensitivity thus creating a calm environment conducive to the growth of co-operation and autonomy. As well, this lower ratio would release the child from a school-oriented existence, allowing him/her greater flexibility and freedom. This is most important for the child who has been in attendance in a traditional classroom environment for most of the day.

In addition such a staff/child ratio allows for the effective development of a play-based learning environment where ample time is provided for both guided and free play. Such a program is possible only when adult supervision is active and effective. This means that teaching methods must be flexible and imaginative with lessons providing the motivation required to stimulate creativity and other higher levels of thinking.

The apparent lack of such methodology in many of the day cares visited in this study implies two things. One, it is possible that many day care workers lack sufficient training. Two, it is equally possible that early childhood training programs are deficient. In truth, both of these are substantial implications. The present focus of early

childhood education programs is on the younger child. The inclusion of the cognitive and emotional development of the older child is imperative considering the present trends in the day care movement. Also, if day care staff are to be required to improve their qualifications, their salaries must reflect this. At present, day care workers are grossly underpaid and working conditions are far from acceptable. A recent Toronto Star newspaper article written by Doris Anderson pointed out that "people feeding the animals and cleaning out cages at the zoo earn twice as much as people charged with taking care of our young" (August 7, 1985, p.D1). In addition, many day cares do not provide coffee breaks for their staff and workers are required to eat lunch with the children. The investigator feels that it may be necessary for day care workers to unionize in order to improve the terms and conditions of their employment and to demand the respect that a child care professional deserves.

Along with effective supervision, the success of a play-based learning program depends on the presence of ample toys and consumable materials. Insufficient quantity means that some children are not actively involved during play which could lead to competitiveness and peer disputes. The play environment should be inviting and relaxed. This can only be achieved if materials are available in sufficient quantity and if the quality of the materials is acceptable. The maintenance of equipment is an important concern and involves both the safety and organization of equipment. Children will learn to respect the toys only if the adults themselves show respect through tidiness and care. The library is a particularly important area as young child-

ren are very impressionable and for many this is their first experience with the world of books. In-school centres should have the advantage of access to the school library with its wealth of fiction and non-fiction books.

At present, if the results of this study are indicative of general trends, the ideal day care environment is a difficult one to find. Nevertheless, the pursuit of high quality day care should be of interest to both educators and parents alike. Care of children has traditionally been the concern of the extended family unit. Recently, this concept of family has been replaced in North America by a focus on the nuclear family and parents are looking elsewhere for effective caregivers. Government policy must assist this search by providing legitimate, high quality child care thus enhancing and ultimately supporting the family.

#### RECOMMENDATIONS FOR FURTHER RESEARCH

As mentioned in the previous section, the government body presently responsible for day care is the Ministry of Community and Social Services. Considerable research is required to confirm the suitability of the ministry's function and to examine alternatives. Research could involve an investigation of day care provisions in the United States and European industrial societies and must include the topic of day care costs. Subsidized day care spaces do not meet the present demands and income tax deductions benefit only a small portion of those using day care.

As well, research into Early Childhood training programs is required to determine areas that require improvement and those that are acceptable. The investigator feels that knowledge about the cognitive

and emotional development of the older child is an area desperately in need of attention in training programs.

Further research could evolve directly from the findings of this study. Of particular concern to the investigator was the lack of an appropriate instrument for assessing the attitude of young children. Many instruments exist that effectively assess the academic and intellectual growth in young children. However, with a greater emphasis on the well-rounded individual, North American society has recently expressed more concern for affective growth. Research aimed at the development of a valid and reliable attitude assessment is essential.

As well, several unanswered questions plague the investigator. What effect does physical environment actually have on the teachers' and children's motivational levels? Does the number of children in attendance at a day care centre make a difference to the quality of the centre? How much did the investigator's bias influence the results of the quality assessments? A larger study involving many trained observers in a variety of settings would yield more of the kind of information necessary to improve the quality of the day care environment. Such an improvement is imperative since the future of this country depends on the provisions made today for its most important natural resource - the Canadian child.

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APPENDIX A

OUTLINE OF TELEPHONE CONVERSATION CONDUCTED WITH THE DIRECTOR OF  
EACH DAY CARE FACILITY PRIOR TO THEIR INVOLVEMENT IN THE STUDY

- 100 -

I am conducting a research study for my Master's thesis that will determine the effect of a child's attendance in day care on his attitude towards school.

I will be visiting ten day cares in the City of Etobicoke - five in-school and five out-of-school. I will spend four hours in each facility administering William Fowler's Environmental Profile - a quality assessment survey. As well, I have a brief interview to conduct with the director of the facility.

I wonder if your day care would be interested in being a part of this study. If you would, your facility's name will never be included in the study, but will be referred to by number. I would gladly discuss my assessment of your day care with you. This could be most helpful in pointing out the strengths and weaknesses of your day care.

APPENDIX B

LETTER TO PARENTS OUTLINING THE NATURE OF THE STUDY AND REQUESTING  
PERMISSION FOR THEIR CHILD'S INVOLVEMENT

- 102 -

Dear Parents:

During the summer of 1983, I visited ten day care centres in Etobicoke, including name of day care. At this time, I observed the program at the facility. This assessment was the first step towards completion of a master's thesis in education which is looking at day cares and their effect on the attitude of young children.

Presently, I am returning to each day care and administering a brief survey to the children who attend a regular school in senior kindergarten, grade one and grade two. This survey is administered to the children as a group and total anonymity is guaranteed. I will be visiting name of day care on date of visit and look forward to meeting your children.

Please return the attached consent form.

Sincerely,

Karen Gough

---

I give permission for (child's name) to be involved in this survey.

---

Please sign here

APPENDIX C

INTERVIEW ADMINISTERED TO THE DIRECTOR OF EACH DAY CARE AT THE  
BEGINNING OF THE ASSESSMENT



Form 2 - Administration

1. How are decisions made regarding policy change?  
Are staff meetings held regularly?
2. How would you rate staff co-operation and planning in completing tasks?  
1. none 2. occasional 3. often 4. frequent 5. always present
3. Psychological atmosphere.
4. Do you follow a schedule of activities?  
How often is this schedule changed?
5. Do parents participate in policy decision-making or program changes?  
How is this accomplished?
6. Do you work with other community facilities?  
Is this a regular function?
7. How many staff members?  
How many with child care qualifications?  
How many have previous experience in other facilities?
8. Do you have an in-service development program for staff?  
What does it include?
9. Do you evaluate staff?  
How is this accomplished?

Form 3 - Structure of Children's Socio-emotional Environment

1. Staff:child ratio when the facility is at full capacity?

2 years to 3 years \_\_\_\_\_

3 years to 4 years \_\_\_\_\_

4 years to 5 years \_\_\_\_\_

Organizational

2. Are workers assigned to particular children?

How often each day?

For how long a period of time? eg. 3 months

3. Do children work with a variety of adults?

Do these adults supervise in various situations?

4. Is there an attempt to balance social and cognitive experiences?

How flexible are these schedules?

Equal Concern for Development Work and Play Ethos

5. What is your attitude towards work and play in a day-care facility?

6. Evaluation

How are children evaluated socially?

How are children evaluated cognitively?

What is the follow-up to this evaluation?

Form 4 - Cognitive Stimulation Program

1. How often are materials changed or rearranged?
2. Do you plan group learning session?  
How many per day?  
How many children involved?
3. Do you take children on excursions?  
Where do you go?  
How often do you go on excursions?

APPENDIX D

RAW SCORES FOR ALL VARIABLES

Day Care	Form I	Form II	Form III	Form IV	Form V	Overall Quality	Attitude Score
1A	61	31	52	60	74	278	15.4
1B	30	33	49	56	49	217	15.8
2A	54	36	57	58	76	281	21.2
2B	34	32	55	60	78	259	18.4
3A	62	43	65	65	101	336	20.5
3B	32	36	53	51	64	236	16.1
4A	54	45	82	94	116	391	17.1
4B	45	43	64	81	98	331	14.8
5A	36	40	72	63	76	287	N.A.
5B	30	38	54	57	85	264	N.A.

Form I: Physical Environment

Form II: Adult social-structure and socio-emotional environment

Form III: Children's socio-emotional environment

Form IV: Cognitive stimulation program

Form V: Toys and Equipment